ANCIENT CITIES and MODERN TRIBES

THOMAS GANN

To my friend and Companion
T. Gann

ANCIENT CITIES AND MODERN TRIBES

THE DIVING GOD WORSHIPPED AT COBÁ

[*Frontispiece*

ANCIENT CITIES AND MODERN TRIBES:

Exploration and Adventure in Maya Lands

BY

THOMAS GANN

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Member of the Maya Society

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TO

SYLVANUS GRISWOLD MORLEY

"THE LITTLE FRIEND OF ALL THE WORLD"

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FOREWORD

DURING the expeditions recorded in the present volume a vast Maya ruined city was discovered, the third largest in Yucatan, connected by a gigantic causeway of cut stone to the ancient social and religious centre of Chichen-Itza, fifty miles distant.

Other work in the great archæological treasure-house of Yucatan and Central America resulted in the discovery of new Maya dates, found in hieroglyphic inscriptions upon stone, which will undoubtedly shed much light upon the obscure question of the history and chronology of the early civilisations of the new world. The immense underground chamber of Loltun—a world in itself—is described in these pages, together with accounts of new work performed at the ruins of Copan on the largest sundial in the world and its revelations; at Chichen-Itza, the sacred aboriginal city of the plumed Serpent-god; and at the mysterious and as yet undated city of Lubaantun.

In such regions travellers are rare and travel is not easy; and if the variable incidents of finding food and shelter are frequently recorded, it is because the transport conditions of twenty miles or so may provide material for genuine adventure; while the lives and customs and ideas of the native folk of ancient stocks, Maya and Kekchi and their kin, cannot fail to interest the explorer, always searching for interpretations of the past that here, perhaps more than in any other part of the globe, has been so strangely overthrown.

GULF OF MEXICO
FROM NEW ORLEANS
TO NEW ORLEANS
PROGRESSO
ISLE DE LAS MUJERES
MERIDA
CHICHEN ITZA
COBA
COLUMEL
YUCATAN
CAMPECHE
ICHPAATUN
CHETUMAL BAY
TABASCO
BRITISH HONDURAS
BELIZE
CHIAPAS
LUBAANTUN
PUNTA GORDA
PUERTO BARRIOS
GUATEMALA
QUIRIGUA
COPAN
HONDURAS
PACIFIC OCEAN

ANCIENT CITIES AND MODERN TRIBES

CHAPTER I

Kingston, Jamaica—Negro on an equal footing with the White—An unwary American visitor—Air of decay about the town—Indications of coloured blood—Arrival in Belize—Novel item on a wine list—Caribs—Curious articles on sale at Belize market—Carib bride's privilege on her wedding-day—Lucky stones and their breeding—Burial above ground, objections to it in the earthquake zone—Grave of a mahogany-cutter, and Chief Magistrate of the Colony, of the eighteenth century—A quaint inscription over a Bayman—John Crows—Search for a manatee—Catching a sawfish—Spearing a manatee—A long fight in landing her—The calf escapes—In the throes of death she nearly revenges herself—Curious situation of the breasts—Manatee love-making—The animals are gradually being exterminated—A scared little negro—Strange migrations of the manatee herds, and their cause.

I LANDED at Kingston, Jamaica, on the 23rd November, 1925, and spent five days there, awaiting the arrival of the *Canadian Forester* for Belize, the capital of British Honduras, where I meant to establish my base for expeditions into the surrounding countries.

Kingston is not a pleasant town for a short stay. The heat is terrific, and the clouds of fine brown dust, which, carried by the wind, penetrate everywhere, make life a misery, soiling one's linen and clean white clothes and finding their way into one's eyes, nose and mouth.

The visitor requires to keep his weather eye open when traversing the narrow lanes of the poorer part of the town, or he will come into collision with some coloured brother or sister carrying some odoriferous material, as salt fish, or something that comes off, as mud-covered yam or sweet potato.

The American visitor, especially if he be from the Southern

States, will find himself woefully mistaken if he thinks the coloured person will give way to him on the streets, for here colour not only vastly predominates numerically, but is in every way on an equal footing with the white.

I observed two large, florid, important-looking Americans who had come ashore for the day from one of the United Fruit Company's big luxurious New York boats. They were strolling down Harbour Street, where the side walk narrows down in one place to eight inches or so, toothpick in mouth corner, Stetson on back of head, and thumbs in waistcoat armholes, and, coming from the opposite direction, sauntered a negro lady, carrying on her head a basket from which protruded the tail of a large fresh fish.

The leading U.S. citizen met the lady, head on, at the narrowest part of the side walk, and evidently—until it was too late—took it for granted that she would give way to him.

He was sadly disillusioned, however, as she never budged an inch from her course, and left him wiping fish scales and slime from his spectacles and face, using language quite unbecoming a citizen of the great Republic, while the British coloured subject continued majestically on her way without even a glance backwards.

There is a certain air of decadence and decay about even the best residential section of the town. Many of the houses date from Jamaica's palmy days, when sugar heiresses filled the rôle, later occupied by American million heiresses, of financial prop and stay to the aristocracy, and were at one time stately and beautiful residences, but now a sort of dry rot seems to have attacked them—the paths are weed-covered, the gate lacks a hinge, the rails show a few gaps, and the house itself cries aloud for a long-deferred coat of paint.

There are very few of the old Island families of unmixed blood, and it is a fairly safe course to place anyone who calls a horse a " harse," and has purplish semilunes on his finger nails, in the coloured class.

Many of the creole girls are really beautiful, with their

large languorous brown eyes, exquisite tea-rose complexions and graceful carriage; but they nearly all suffer from indolence, listlessness and anæmia, the inevitable heritage of the white races after the second generation in damp warm climates, which will render it impossible for the tropics ever to be colonised successfully and permanently by the white man.

I was not sorry to board the *Canadian Forester* on the 28th for Belize, where we arrived without incident on the 30th.

The inclusion on the *Forester's* wine list of " Fruit Salts " made one realise pleasantly that one was, at last, really in tropical America.

Belize is one of the most delightful little towns along the Caribbean coast. The market, from 5 a.m. till breakfast-time, is the hub of the city, for there everyone must either come or send for their daily supply of meat, fruit, and vegetables.

Here are groups of Carib women, descendants of those black cannibal aborigines from the Amazon basin, who, passing from island to island, and northward along the coast, in their frail dug-outs, reached as far as the Bahamas and Yucatan, slaughtering the males of the aboriginal population and taking the women to wife, so that even to this day the Carib women speak a separate language of their own amongst themselves, not understood by the men.

One notices that at the market they hold aloof from the negroes, squatting in groups by themselves before their wares, chiefly manioc, great thin biscuits of cassava bread, 18 ins. in diameter and $\frac{1}{4}$ in. thick, and native starch.

They are coal-black, splendidly upright from carrying great weights on their heads, with not unhandsome features, and magnificent ivory-white teeth; but many of them are disfigured by " pinta," a vegetable parasite, forming patches of leprous white on their faces, hence the term " potted Carib," by which they are known among the negroes.

There is no question of women's rights among the Caribs, for the gentler sex have neither rights nor privileges, unless

it be those of working hard in the plantations all day to keep the household fires burning.

On her wedding-day the newly wedded Carib wife has the privilege of walking down the village street ahead of her husband, but thereafter for the rest of her life she must follow humbly in his footsteps like a dog, and if there is anything to carry, he hands it to her as a matter of course.

Most of the market stalls are held by negro " mammies " in gaily coloured cotton, their immense feet clad in colossal, laceless boots, which they scrape along the ground with a curious shuffling movement as they walk. They are never still and never silent, but always smiling and good-tempered.

Their stalls are heaped with native fruits and vegetables in the early morning, but by midday very little is left upon them.

The long wharf fronting the market is crowded with native dug-outs coming in from the sea, paddled by swarthy Spanish and Indian mestizo fishermen, selling their catch of fish, while others come down the river from the interior, loaded with oranges, grape-fruit, sweet potatoes, yams and okras.

But other and rarer things may be bought at the Belize market. Iguanas—great, greenish-grey, 5-ft., crested lizards, ugly as sin, even in death, are on sale, hanging by their tails, and dripping blood and saliva from their mouths, whose chicken-like flesh is considered a great delicacy; the rat-like gibnut, the armour-plated armadillo, and the giant green turtle are also to be had, and with suitable precautions one may obtain a couple of lucky stones, greatly prized amongst the negroes as bearers of good fortune. These are small pieces of iron ore, sold in pairs, which, kept in a box in the dark, and fed regularly with iron filings—usually begged from a machine-shop—are reputed to breed, though I have never encountered anyone who would admit having raised a brood of young lucky stones.

One of the sights of Belize is the overground vaults, where, surrounding a rectangular enclosure, are hundreds of small

cells arranged tier upon tier, each containing its own coffin. Belize is built upon a swamp, with the result that anyone buried at a depth of two feet or over has to be consigned to a watery grave, hence these overground burials.

This problem has now been solved by adding two or three feet of soil to the surface of the cemetery, the old method being discarded; and indeed in the earthquake zone it is not a desirable one, as was proved in Guatemala City, where, after the last "temblor" the graves literally gave up their dead. The overground vaults became a mountain of broken masonry, bones, and putrefying flesh, and the stench was so awful that, to prevent a plague, the corpses had to be heaped indiscriminately together in a great mound, saturated with hundreds of gallons of mineral oil, and burnt.

At St. George's Cay, the former capital of the Colony, are many interesting graves in the cemetery, including some of those who died at the famous battle of that name, when the Spaniards made their last attempt to recover the Colony, and were repulsed by the "Baymen," as the natives were called, with great loss.

One of the most remarkable is that of Thomas Potts, who, during the mid-eighteenth century was Chief Magistrate of the Colony. He is interred in a great stone urn, on the back and front of which are inset marble medallions upon which are sculptured his face in profile—grim, bald-headed, long-nosed and bewhiskered.

On the front of the urn is depicted in low relief, and with considerable realism, a great fallen mahogany-tree and the stump from which it has just been cut, with a barbecue (or platform of sticks, to admit of the axemen reaching the trunk above the huge spurs) erected around it. Beside the tree stand two naked black slaves, one devoutly praying, the other pointing downwards with one hand, as if to indicate T.P.'s probable destination. In the centre are two more naked slaves, each holding an object more like a polo stick than anything else, which must have been employed in

ancient times in the felling of mahogany, but the use of which is now entirely forgotten in the Colony. In the background are four naked negroes sitting round an immense fire of sticks, in a clearing in the forest, which at first I took to be a further reference to the ultimate destination of the deceased, though it is probably only the cooking-fire of a great camp of slaves, sent out to cut mahogany, in the early days of the Colony, when everything was done by slave labour.

Potts must have been one of the earliest of the Baymen to take to the honest cutting of mahogany and logwood (instead of pilfering from Spanish vessels, homeward bound, laden with these commodities), and no doubt shipped to England in the old barques and brigs of the eighteenth century, no inconsiderable proportion of the trees which provided the mahogany under which the knees of our great- great- great- grandfathers and grandmothers rested.

The old Baymen, hardy old fighting traders and adventurers as they were, do not appear to have been noted for sanctity, for on one of the tombstones in the old cemetery, erected over the grave of a certain George Hume, who lived in the eighteenth century, is found the following quaint inscription "In Reverent Memory of George Hume, Mahogany Cutter and Bayman but God Fearing."

One of the strangest sights to the visitor to Belize, though it has entirely lost its novelty for old timers, is the great number of black vultures (locally known as John Crows) encountered everywhere, fighting with the dogs for the offal in the streets, perched on every roof pinnacle and tree in the town, and hovering, black specks in the empyrean, whence their telescopic eyes can locate a dead cat at a distance of a couple of miles.

They are obscene and filthy birds, with their long, black, bare necks and legs, bright little beady eyes and rusty plumage, that, presuming on the protection afforded by their stercoraceous smell from even the hungriest cur or cat, hop leisurely out of one's way in a series of rapid, skipping

Sarcophagus of Eighteenth-century Mahogany-Cutter

Archaic Figure indicating splitting of Tribes and rise of new Cults, Yucatan [*p.* 24

jumps, but return to the offal for which they fight with the innumerable starving hounds of the town as soon as one has passed.

They will eat practically anything, and not infrequently fly in through the kitchen widows or doors and make off with the dinner meat while the cook's back is turned. Though as scavengers they conduce to good sanitation, I am not at all sure that the droppings of such a vast number of foul feeding birds upon the roofs, from which is collected the only water supply of the town, do not more than outweigh their advantages.

From my arrival in Belize, I started on the hunt for a manatee—the mermaid of the ancient mariners—as I had promised to procure one for the Reading University, whose Zoology Department had recently published a paper, in the Transactions of the Royal Society of Edinburgh, on the anatomy of the head of the fœtal African elephant.

Palæontologists say that elephants are related to the Sirenia, of which group the manatee is one of the few surviving examples. Our only knowledge of this animal relates to the skeleton and to fossil skeletons of its predecessors. To establish the theory therefore, a knowledge of the soft parts is necessary, and this the Zoology Department of the University hopes to obtain from a specimen from British Honduras, one of the few remaining localities in which the animal is still to be found.

Both by day and night I set hundreds of yards of stout nets in the shallow waters round Belize, where in the muddy bottom grows the long, ribbon-like seaweed, known as manatee grass, on which these animals feed. We captured other sea monsters which inhabit these waters, but never a trace of a manatee did we see.

Every morning three or four tiger sharks were found in the nets, and promptly dispatched, and on one occasion our night's bag consisted of a dolphin, five tiger sharks and a sawfish. This last proved a difficult proposition to deal with, as they are immensely powerful fish, active, and quick as eels.

When the dug-out approached, notwithstanding the fact that he was inextricably entangled in the net, he suddenly reared up from the water and brought his terrible saw—measuring nearly three feet in length, and armed with a double row of needle-sharp three-inch spikes—down with a terrific swish within a foot of the little boat. Had he hit her, it would have gone through her side like a knife through butter, and we should have been in a very dangerous position, not only from the sawfish, but from the tiger sharks which infest these waters.

Taking warning from the first escape, however, we managed to get him well entangled in the net, and hacking off his saw with a machete, thus rendering him perfectly harmless, we towed him in to the nearest little mangrove cay to be photographed.

The shark, when netted, is a poor fighter, though when struck with a harpoon he struggles valiantly for his life, but once enmeshed in a net he seems to give up all hope and can be landed as easily as a herring.

At last, after over a month's fishing, a manatee cow was sighted about half a mile from a small mangrove cay near Belize. She was accompanied by a calf nearly three feet long and was forging gently along, sometimes on the surface, and sometimes submerged.

The sailing dug-out rapidly overhauled her, and so occupied was she in the antics of her calf that we were within striking distance with the harpoon before she realised her danger.

The great shaft shot out, driven by an unerring arm, and the iron barb buried itself deep in the animal's immensely thick hide, about the centre of the back. Then the sport began, for I am certain that more excitement is to be got out of playing a manatee weighing something like 1,500 lbs., with the barb holding well, than out of the gamest salmon or tarpon that ever swam, and if the sport may not be so scientific, the chances are at least more equal for the quarry, as the great animal, though devoid of teeth and perfectly harmless on shore, can turn over a large dug-out with a single

flip of its immense fan-shaped tail, or by diving, and rising beneath it.

Two men were using long poles on the shallow bottom and two paddling, while another in the bow attended to the rope holding the harpoon, which had slipped out of its socket at the base of the shaft as soon as it had struck home.

It was very much like playing a big fish ; the manatee's rushes were checked by the poles and paddles and the weight of the dug-out, till at last even her great mass of muscle began to tire, but it was not until she had put up a gallant fight against five fishermen for two hours that she was towed to the nearest islet and hauled into shallow water.

Another dug-out was then procured, and she (for it was a mermaid and not a merman) was gradually lowered into this, which was tilted on its side to receive her ; but first strong poles were fixed along her back and belly and her flippers tied, to prevent her moving and upsetting the dug-out.

The calf in the meantime had deserted its mother and was not seen again, but as it was well grown it will probably afford sport to someone else in the future.

From the little island she was towed to Mojo Cay and landed on a strip of sandy foreshore, when for the first time we heard her voice, a deep, hoarse bellow, not unlike a fog-horn.

The poor mermaid was slaughtered by having wooden pegs driven into each nostril, which was by far the most merciful method of execution, as the death struggle did not last a minute, while with a knife and axe it would have taken much longer to reach a vital part through the enormously tough, rubbery hide, which over the back is ¾ in. thick and composed of hard cellular tissue.

In taking off the skin we found no less than four old harpoon scars beneath it, indicating that this was an ancient lady, who had been harpooned and managed to escape on no less than four previous occasions.

While in the act of dying she performed an extraordinary

manœuvre for such an immense animal. She was lying perfectly still and apparently dead, when I approached with the intention of starting the removal of the head, which, with the muscles of the neck, was the part required by the Reading University for scientific purposes. Suddenly, without the slightest warning, using her head at one end and her tail at the other as levers, she jerked her immense bulk into the air, turned a complete somersault, and came down within a foot of where I was standing, after which she never moved again. It almost seemed as if this last, half-conscious act had been performed in hope of revenging herself upon her destroyer.

She measured 10 ft. in length, 34 ins. across, 19 ins. deep, and weighed approximately 1,500 lbs. The tail was 21 ins. broad.

One of the most curious things about the animal was the situation of the breasts, which were placed immediately beneath the front flippers, where the young, held to the chest by the mother's arms, could conveniently get at the nipples.

One of the fishermen, stepping accidentally on the left breast, was deluged by a flood of thick white milk, which spurted from the nipple.

The manatee, while feeding, flops along the bottom, grazing upon the long green seaweed, which seems to constitute its sole diet. As it moves it stirs up a great cloud of mud, which completely camouflages it.

The great sting-ray, which is a bottom feeder on fish, crabs and other crustaceans, also raises a cloud as it floats along on its huge wings, but its cloud moves much more rapidly, and is broader at the apex than that of the manatee, which stirs the mud up with its nose, while the ray stirs it up with its broad wing-like fins.

One of my fishermen had an experience which has fallen to the lot of few men. Landing one bright moonlight night from his dug-out on the sandy shore of one of the islands near Belize, he came upon a huge bull and cow manatee in the romantic occupation of making love. They

"Mermaid," or Female Manatee

Sawfish, Mojo Cay

[p. 28

took not the slightest notice of him, and it was not till he had attacked the bull with his axe that they both flopped off on their flippers into the water, and disappeared beneath the surface to be seen no more.

Manatee are getting rarer and rarer every year and will probably before long be added to the ever-extending list of extinct animals, as, though their immense bulk and thick leathery skin form an efficient protection against any would-be enemy, they are being gradually driven to more and more remote fastnesses by the advance of civilisation, to which they must inevitably succumb in the long run.

The Mexican Government, realising this fact, and being unwilling that manatee should be exterminated along their coasts, where once they were so plentiful, have, I understand, recently taken legislative measures to deal with the situation, by which manatee are to be completely preserved for a number of years and are not to be slaughtered at all, under a fairly heavy penalty. This is a most excellent measure, but unfortunately, in Latin America, while legislation is the easiest thing in the world, the carrying out of legislative measures, especially in sparsely populated country districts where the Government has no machinery at its disposal for the purpose, is exceedingly difficult.

The intent, however, is admirable, and I should like to see Mexico's excellent example followed by all Central American countries, for this huge mammal—last survivor of another age—is absolutely harmless, as it never under any circumstances attacks man, and its food consists exclusively of seaweed; while, if not interfered with, it rapidly becomes very tame, and great droves of them, bulls, cows and calves, would soon be disporting themselves at all our river bars, forming an extremely interesting and amusing spectacle, not perhaps to be witnessed anywhere else in the world.

I had the head placed in a small barrel of commercial alcohol and brought to the hall of the hotel where I live in Belize, the top being laid lightly over the barrel until it could be properly secured.

A little nigger managed to make his way into the hall, eaten up with curiosity, after the manner of his kind, and simply had to lift up the barrel top to see what was inside. He was met by the manatee's great whiskered snout and piggish little eyes, bobbing up at him, on which he incontinently dropped the lid and fled, howling, " Hi yi, de ole debble hisself ! "

The head seemed to absorb almost unlimited quantities of alcohol, and in order to keep it covered I had to add several gallons of the spirit every few days, till I adopted the expedient of partly filling the barrel with stones, which brought the level up, and at the same time conserved the expenditure in spirit.

Notwithstanding all these precautions, however, when the barrel was permanently headed up, preparatory to its shipment home, after the head had been in pickle for nearly two months, it exuded a brown, grumous liquid with an extraordinarily unpleasant and peculiar odour.

The habits of the manatee are well worth close study, as no one, not even the most observant of the local fishermen, seems to know very much about them. Especially peculiar are their migratory habits. At one time one will see considerable numbers of them in the shallow waters at the mouth of the Belize river, then a few weeks later they will all have deserted this location for some of the sandy cays off the coast, and later still will be heard of along the mangrove-fringed shore to the north of Belize.

These periodical migrations appear to be brought about by changes in the wind, and heights of the tides, as they cannot be due to any shortage in food, which is present in inexhaustible quantities at the mouth of the Belize river and along the adjacent coasts.

CHAPTER II

Chewing-gum—Debt owed by archæology to chicleros for their discovery of ruined cities in the forests of Central America and Mexico—Moodie—Frigate-birds fishing—Shark-catching on a commercial basis—Reason of its failure—Catching a female sawfish—Sawfish's attack on tarpon—Sawfish's method of feeding—Record sawfish lost his saw in some battle of sea monsters—An ungallant male sawfish—Suckers and their fate—A bold alligator—Method of capturing alligators alive—Methods of killing very large alligators—Alligators eating their young—Their methods of capturing birds, fish, and mammals—An alligator's encounter with a Ford car—Silver bangles found in alligator's stomach—A wild-goose chase after ancient Maya heads—A miserable night—Lost in the pine ridge—A night in the rain—Chewing tobacco to relieve hunger—A second night in the bush—Wandering in a circle—We strike a trail—Danger of travelling without a compass.

On another occasion I started forth in my motor-boat, the *Booksie*, with James, my black boy, Moodie, a fisherman, and the latter's son. Muddy I had lent to a magnate of the American Chicle Company, who was starting on a six weeks' trip through Guatemala and Southern Mexico to inspect the various " camps " of the company, established in the forest for the collection of the latex of the sapodillo-tree, an indispensable component of chewing-gum, giving it the extraordinary extensile capacity which, next to the flavouring, is its most highly valued quality in the eyes of gum-chewers.

But whereas the flavouring is exceedingly evanescent, and disappears after the first few chews, the elastic quality only improves with mastication, and allows the chewer to draw out long extensile strings from his open mouth, to the delight of all beholders.

Furthermore, the latex, commonly known as chicle, supplies the adhesive qualities in chewing-gum which enable

the user to cement his chew to the under-surface of a table or seat—preferably in a theatre, or some public place—when he wishes to give his masticatory apparatus a rest.

Frequently, however, he does not resume rumination on that particular bolus, with the result that the next occupant of the seat will usually discover a selection of dried knobs of gum, ready to his hand, in any restaurant or theatre, or if not, he will often find that he has collected a more recently used piece on one of his boot-soles.

Chicle, owing to its growing popularity and restricted supply, is becoming every year more and more expensive, and I have often thought that quite a respectable and honest livelihood might be made in these days of new and weird occupations, by what one might term an urban chiclero, in contradistinction to a forest chiclero, who collects the gum direct from the tree. He would go round to theatres, restaurants, and similar places of public resort to collect the boluses of used chewing-gum from beneath tables, chairs, and other favourite repositories, for if re-used rubber, why not re-used chewing-gum?

One sometimes regrets the passing into desuetude of the fine old American habit of tobacco-chewing, with its concomitant cuspidors, some of them large as a foot-bath, affording even the poorest shots a chance of hitting the bull's eye.

The chicle companies, however, from the archæologist's view-point, deserve every possible encouragement, as only chicleros venture into the dense, uninhabited, almost impenetrable bush of Southern Mexico and Central America, where the ruined cities of the aboriginal inhabitants are found buried in the primeval forest, undisturbed by man for periods varying from one thousand to two thousand years.

Most recent discoveries, both of ruined cities and dated monoliths, have been made by chicleros who have penetrated into remoter and still more remote regions of the bush in search of the elusive sapodillo, and it is more than probable that, had they not been accidentally discovered by chicleros,

such great cities as Uaxactun, Tikal, and others in the south of Guatemala would have remained hidden in the forest, unknown to man, for another fifteen hundred years, as they have remained for fifteen centuries since their desertion by their original builders.

We must, therefore, admit that the chiclero, though he panders to a by no means æsthetic or pleasing habit, has, even if unintentionally, been of the greatest service to the science of archæology.

Moodie is a spare, wiry, sun-dried ancient, with mahogany complexion, grizzled hair, and clear, light blue eyes; a follower of the sea since he could walk, and that type of fisherman which only the Atlantic coast of Middle America seems to be able to produce. Seining, cast netting, harpooning—or striking, as it is called locally—trolling, or bottom fishing—he is equally expert at all, and when he can be got to talk, his knowledge of the habits and peculiarities of local fish is unrivalled.

On the way to Mojo Cay we watched two extraordinarily tame frigate-birds fishing amongst a shoal of sprats, a very pretty sight and one not often witnessed at such close range, as they were apparently too busy taking advantage of their opportunity to notice us, and we were able to get within a few yards of them.

The effortless ease and certainty with which they planed down from the heavens to just within striking distance, lowered their beaks apparently without any undue haste, and rose with a single gentle flap of the mighty wings, always holding a sprat in their beaks, was only equalled by the enormous number of sprats which each accounted for; indeed, with their insatiable appetites, it bid fair to be a continuous performance, till the sprats, apparently realising at last that danger lurked upon the surface, made off in all directions.

The sure, unhurried, workmanlike fishing of these great birds contrasts strongly with the terrific splash and greedy gobble of the poor old pelican, but I doubt if the frigate-bird

has anything on the latter in efficiency, and certainly not in fish-containing capacity.

We had out, near Mojo Cay, about 600 feet of broad mesh seine, specially constructed of very tough twine for the capture of sharks, which had been started on a commercial basis by a company operating in Belize.

The skins were salted, tanned, and used for leather, than which there is no finer or softer; the livers, which constitute more than one-third of the entire fish, were tried down for oil, the fins dried and exported for Chinese consumption, and the rest of the animal used as fertiliser.

The industry was at first remarkably successful, but later the supply of sharks began to fail, partly probably because they are to a certain extent a seasonal fish in these waters, following the mullet shoals in thousands, but chiefly, I imagine, because sharks must have begun to realise that there was something unhealthy about the neighbourhood of Belize; anyhow, they refused to be caught in large numbers, and the undertaking failed.

On arriving at the nets, we found five good-sized tiger-sharks entangled, and these having been dispatched where they would kill no more useful fish, and sent adrift, we proceeded to haul in.

On reaching the middle of the seine, we found it anchored at the bottom, and imagined it had got caught in a snag, but, on giving a good pull, suddenly up came a large sawfish rising well out of the water and swishing viciously about from side to side with its terrible saw, although it was securely enmeshed in the net.

With considerable difficulty we got a rope round its saw, and another round the great rudder-like tail, and towed it in to Mojo Cay.

This proved to be a female, and the photographs show the marked differentiation in the genitalia between the two sexes. The professor's etymology of the term " poor fish " obviously does not apply to the sawfish.

On reaching shallow water, her head was loosed, with a

view to pulling her ashore by the tail, when she suddenly veered round and made a vicious lateral swipe with her saw at the boat ; fortunately, however, being anchored by the tail, she could do no harm, as the *Booksie* was out of reach of the tip of the saw, but it gave one a good idea of the method of attack and the terrific execution which may be wrought by this terrible weapon, wielded by a thousand pounds of muscular fish behind it.

I have seen a 5-ft. tarpon—one of the stupidest, as he is one of the gamest of fish—come nosing up to a half-grown sawfish, whether under the misapprehension that he was going to get an easy meal or out of sheer stupid curiosity it was impossible to say ; anyhow, within five seconds he was probably the most startled tarpon alive, for the sawfish turned on him like a flash, and, before he could make off, raked him down the side, detaching a shower of his great shining silvery scales, then started in pursuit, as the tarpon made off at his best pace.

The end of the chase we did not see, but, if the tarpon escaped, he must have been a sadder if more experienced fish for the rest of his life.

The mouth of the sawfish is a curious pocket-like arrangement, on the ventral surface, beneath the saw. He has no teeth, but thick, rounded lips, lined with small white studs, and presenting an appearance for all the world like a piece of beaded handbag made of small grey glass beads. These keep the orifice always open, and the creature must feed by slashing his prey up with his saw, and allowing the bits to enter the ever-open pocket behind it.

This fish measured 14 ft. in length, $5\frac{1}{2}$ ft. across the front wings, and 5 ft. in circumference behind them. The saw was $3\frac{1}{2}$ ft. long and 8 ins. across the base.

The largest sawfish ever caught in these waters measured 26 ft. in length. He was washed in by a very high tide to the shallow lagoon at Salt Creek, and could not get out again. He was such a monster that the fishermen were afraid to cross the lagoon in their dug-outs, till at last he

was harpooned and dragged ashore, when it was found that he was minus a saw, which had evidently broken off in some battle of monsters. How he managed to exist without this weapon is a mystery, and still more difficult is it to imagine on what adversary he could have broken a saw, probably, judging by his immense size, at least 12 ins. across at the base, and constructed throughout of extraordinarily tough, resilient fishbone.

One of our best days' sport in Belize at harpooning and seining yielded two sawfish, of 12 ft. 8 ins. and 12 ft. 4 ins. respectively, five sharks, and an alligator about 9 ft. long.

The sawfish were, as will be seen, male and female, but the female, I think, belonged to a different species from the male, as she was much slenderer, and, although only about half the weight, her saw was a good deal longer than his; moreover, while he was a dark greenish colour, she was distinctly reddish on the back and sides.

He was a very lively fish, and fought savagely, but she, when the harpoon struck her, took it without a quiver, and, instead of setting off at a good pace with the dorey towing behind her, she sulked persistently at the bottom.

On being towed into Mojo Cay, they were both tied up to a fisherman's net-drying framework, built over the sea, when, without the slightest provocation, the male attacked the unfortunate female, scoring her down the tail (the only part he could reach with his saw), but even of this insult she took no notice, and simply shrank away as far as she could get.

Attached to her belly were two suckers, horrible, dark green, spindle-shaped creatures about 9 to 10 ins. long, with what were apparently great suctional discs, covering the whole of the side of the head opposite to that on which the gills and eyes were situated.

I got both these ashore, with a view to putting them in alcohol, but they displayed an uncanny vitality, and ultimately squirmed down a huge land-crab's hole, where it

was useless to try and dig them out, as the land-crab, who must have regarded them as a special gift of providence, had no doubt promptly dragged them down through the underground labyrinths of his dwelling to the cellar, there to be disposed of at his leisure ; nor did I pity their fate of being eaten alive in the dark, for they were about the most repulsive creatures I had ever seen, and had probably been engaged for years in eating alive the unfortunate sawfish on their own account.

For some time I had been leaving large fish to rot on Mojo Cay in order to attract flocks of black vultures or zopilotes, of which I wanted to get a good photograph when rising in a cloud from their prey, but invariably something made off with my bait before it had got sufficiently high to attract the zopis, and at last I discovered the delinquent, for, paddling quietly in a dug-out up to the spot where I had left a shark to ripen the previous day, I was almost on top of an 8-ft. alligator just in the act of putting out to sea with the shark in his mouth.

On seeing me, he hesitated for a moment, evidently not quite able to make up his mind whether to drop the titbit or not, then, with a violent scuffle and plunge, he was under water and off, shark and all.

I determined to be revenged for these thefts by a day or two's alligator-hunting around Belize, where these reptiles swarm, or rather used to, for, owing to the high price now paid for their skins, they have recently become much scarcer and more wary.

The so-called " pans," in the swamps around the town, are their favourite haunts. These are shallow, grass-covered savannas, interspersed with mangrove bushes, half lagoon, half swamp, often with sandy beaches at the edges, where inlets of the sea penetrate.

Around these pans the alligators dig their holes or live in natural caves, formed where the tide has undermined the muddy banks.

In the heat of the day they come out to sleep in the sun,

usually stretched out on a log, or in the immediate neighbourhood of their holes, and that is the time to catch them. Two hunters are required, each armed with a noose of stout rope at the end of a stick. With this they creep up as close as possible to the sleeping reptile, often to within 3 or 4 ft., without awaking him, and, holding the noose out at the end of the stick, dexterously slip it over his nose. The alligator, on being aroused, at once starts forward to escape, when the noose slips down over his narrow neck, and he is captive.

Now one of two things may happen: either—as is far the more usual—he pulls against the rope like a recalcitrant pig, when he gradually chokes himself, and can be easily hauled by the two men to higher land, where he is made fast and his mouth tied up, or, as is much less usual, he may deliberately turn and go for his captors.

In this case the second man skips to one side and slips a second rope over the reptile's head, when, thus secured, he is quite harmless, and can be choked at leisure, as they can haul in two directions at once, and so prevent his too close approach to either of them.

This is an excellent method for 'gators up to 10 ft. or so, and affords really interesting sport, especially when the hunters are experts at the game, and, deliberately penning the alligator in the open pan, where he cannot escape to his hole, set about noosing him, matching their quickness and dexterity against his rushes. But beyond this size it is dangerous, and in the case of alligators of 15 ft. and up, extremely foolhardy, as they are often more than two men can control in the shallow water of the pans, where they have every advantage.

For these large 'gators it is usually safer to use a shot-gun, loaded with BB, and, creeping up to within a few yards, plug the 'gator, either in the eye or the throat, keeping well out of reach of the sweep of his tail. Perhaps the more sportsmanlike way is to employ a toggle, a spindle-shaped piece of hard wood, sharply pointed at both ends, attached

by its centre to a piece of fine chain. The end of the chain and the toggle are then well wrapped up in pigs' guts—an irresistible *bonne bouche* from the 'gator's point of view —and the other end of the chain attached to an empty kerosene tin by a piece of stout manila rope.

When he swallows the bait the toggle pulls out at right-angles to the chain, and sticks crosswise in his gullet, and in trying to escape he pulls on the empty kerosene tin, which makes a tremendous racket and attracts the hunters.

The largest 'gator can be caught in this way, as, with half a dozen men hauling on the rope, he can soon be hitched to a tree and dispatched, but even then the greatest care must be taken to keep out of reach of either end of him, for the terrific sweep of the tail is even more to be feared than the cavernous jaws.

The females lay their eggs in holes which they scrape in the sand, covering them up again, and allowing the sun to do the hatching. At this time they are what my old hunter called " muy bravo," and apt to go for one on the slightest provocation, or without any provocation at all; indeed hunters will not, if they know it, attack a laying female.

It is generally believed that the mother will eat her young, waiting for the eggs to hatch out, and the tiny reptiles to run for the water, which they do as soon as they escape from the egg, when she snaps them up and devours them *en route.* I have, however, never seen this happen, and never met anyone who had.

Accidents are very rare, and my old hunter, after many years, had only had one. A small alligator, about 2 ft. long, came up behind, and sunk its fangs in the man's bare ankle, as he was standing in the pan. He turned with a blow of his machete, over the neck, and killed the brute at once; but the wounds left itching, painful bumps when they healed, which took two years to disappear completely.

'Gators feed on land-crabs, raccoons, gorling, poor joe,

and other wading birds, and fish. It seems difficult to believe that such unwieldy brutes should be able to catch the lively coon, but patience does it. Coons are very fond of feeding on fish and crabs stranded by the outgoing tide in shallow pools along the shore, and make regular runs through the grass on their way to and from their feeding-places. The 'gator waits, with inexhaustible patience, by the side of one of these, looking exactly like a log, and exhibiting about the same amount of movement, for hours at a time. At last a coon comes hurrying along, and before he knows what hit him, round comes the terrible tail like a flash, and smashes him over the nose.

Gorling and other waders are caught in the same manner, as they wander along the narrow, muddy shore intent on their search of food.

Fish are caught in the shallow pans (as the water gets low in the dry season) either by chasing them into such shallow water that they cannot escape or, again, by the exercise of patience; the 'gator lies motionless, with his lower jaw along the bottom, his upper jaw wide open; the foolish fish swims in to investigate, and, snap! Before he knows what has happened, he is being digested.

They often play for days with the carcasses of their victims, dragging them into their holes, then pulling them out again, mouthing them, shaking them, then leaving them for a while, almost as a cat plays with a mouse. They like their food high, and seldom eat it till it is almost putrid.

A curious incident occurred recently on the road from Mascal to Honey Camp, just north of Belize. The road here passes between a number of small lagoons, and patches of swamp and mangrove, where alligators abound. A party of four were on their way from Mascal in a Ford car, when, rounding a bend, they came almost on top of a 12-ft. alligator crossing the road.

It was too late to stop, and impossible to turn aside, so they went ahead full tilt, passing with a terrific jolt right over the middle of the alligator.

On stopping to ascertain the damage, they found him thrashing around on the ground, fatally injured, evidently from a broken spine.

Alligators have never been known to tackle a man without provocation, but in the stomach of one of the largest ever caught in this Colony were found two silver bangles, such as women wear. No woman had been missing lately in the neighbourhood, so the probability was that he had devoured some decaying corpse, which had been stranded by the tide and had drifted in from one of the neighbouring Republics.

While in Belize I was told of the existence of three nearly life-sized pottery heads which were said to have been picked up by their owner on the reef off St. George's Cay. This sounded an exceedingly improbable yarn, as pottery heads dropped on the reef by the ancient inhabitants, some centuries ago, would have long since been ground to powder by the constant pounding of the heavy surf on the rough, jagged reefstone. One can, however, never afford to neglect a rumour of this kind, for, though ninety-nine times out of a hundred it proves untrue, yet on the hundredth occasion something really worth while turns up ; so I set out for the Boom, situated about twenty miles from Belize, on the trunk road leading to the interior of the Colony through a great pine ridge.

On reaching the owner's shack, I found three nearly life-sized heads, two of pottery and one of reefstone. One of the pottery ones was a passable likeness of Napoleon III., and this the owner did not claim as an antique, but the other two were said to have been picked up, and presumably to have been the work of the ancient Maya. Both of them represented extremely crude faces, quite un-Maya in character, and obviously modern. One was made of bright red pottery, the other from a chunk of soft reefstone, the coralline rock of which the reef is composed. Needless to say, I did not endeavour to obtain possession of them.

One of my most unpleasant experiences in British

Honduras was connected with this pine-ridge road, for on it I was lost during my first trip on horseback into the interior.

I left Belize one morning with a mounted constable as a guide, taking no pack-mule, as we expected not to be more than three days on the journey, but just saddle-bags, a hammock, and a few toilet requisites, with only a few pounds of biscuits and a couple of tins of sardines for food, as we relied on obtaining provisions at each stopping-place.

During the first day everything went merrily ; the road, leading through open pine ridge, i.e. park-like savanna, with pines scattered about at irregular intervals, was well worn, and could not possibly be missed.

We spent our first night at the Boom, where we were fortunate enough to get some johnny cakes, cold gibnut, and coffee from a party of logwood cutters camping by the riverside.

Next morning they provided us with johnny cakes and coffee, and we set out about 5 a.m.

At first the road, which again traversed the pine ridge, was fairly good, though a great deal of water lay upon it, but the farther we went the worse it became, and at last the water lay so deep in places that we had frequently to dismount and hold on to the horses while they swam over shallow lagoons, often thirty or forty yards wide. About 8 p.m. we reached our objective, a bush hut known as Cliff Falls, having only made thirty miles in the day.

The owners were very loth to admit us at this hour, but after a time we persuaded them to provide us with a night's lodging. The constable was given a hammock, and I secured a large native four-poster, with a couple of sheets spread upon a mattress.

As everything in my saddle-bags was saturated, I stripped naked, and got between the sheets, but, tired as I was, no rest was to be got, on account of an intolerable itching and irritation which came on almost immediately after I had got into bed. On lighting a candle, I found the bed

literally swarming with fleas and bugs, so arose, and, donning my wet pyjamas, sat in a chair till morning, through a most unrestful night. Nor was the constable much better off, for case-hardened as he was by much roughing it in the bush, he could not stand the hammock, and spent the night promenading the room, which was next to mine, swearing to himself, softly, for fear of waking me, but fervently.

Next morning it was raining heavily, and, after a couple of soggy corn-cakes and a cup of muddy coffee, we set forth sadly for our next stopping-place, named, not inappropriately, Churchyard.

Before long we reached higher ground, where the track became much harder and less easily followed.

About 6 p.m., when we should have arrived at Churchyard, I began to fear we had lost our way, though we were still following a faint trail.

The rain was coming down in torrents, night was rapidly approaching; and then we did the most foolish thing we could possibly have done under the circumstances—instead of camping where we were, and next morning retracing our steps, or following the trail we were on, which would almost certainly have led us to a settlement of some kind, we tried to follow it in the rapidly falling darkness, with the natural result that very shortly we found ourselves completely lost on the pine ridge.

We camped where we were, in the deluge, after a meagre supper of one Captain biscuit each and a drink of anisado.

We woke in a few hours, chilled to the bone, and had to walk briskly about to get a little warmth into our bodies.

In the morning it was still pouring in torrents, but warmer. No vestige of track was visible, but on the left was a small pine-covered mound with a gigantic pine-tree growing on its summit, visible for a considerable distance, and, using this as a guide to keep us from wandering in a circle, we set out to look for either a creek or a trail of any kind.

Although it was only thirty-six hours since we had had

a decent meal, we both felt the pangs of hunger acutely, and I followed the constable's example and chewed a bit of leaf tobacco, which afforded considerable relief, though it made me rather sick at first.

That night, long out of sight of the pine-crowned mound, we had come across neither trail nor creek, and lay down, foodless, in the pouring rain somewhat disheartened.

As soon as it was light we were on the move; though, as the sun was still invisible, we had nothing to indicate the direction in which we were travelling, a fact most painfully brought home to us before long; for about noon we approached a little pine-covered hill which appeared somehow familiar, and proved to be the same landmark we had taken as a guide on the previous morning. We were now thoroughly disheartened, and both, I think, began to realise that we might never get out of the pine ridge alive.

All the tales I had ever heard or read of people getting lost in the bush, and either never being heard of again or only when their skeletons were discovered years afterwards, began to recur to me most unpleasantly.

My hunger, relieved at first by the tobacco and copious drafts of water, of which there was an *embarras de richesse*, now began to return more insistently than ever, and, had there been any means of cooking the meat, I think I should have suggested sacrificing one of the horses, both of which were in good condition, for there was no shortage of the sort of food they required.

We wandered rather aimlessly on, and again lay down to sleep in the rain. Next morning, for the first time, the sun was shining brightly, and, guided by this, we followed as nearly as possible an easterly direction, as in this way we were almost certain before long to strike a creek or trail, or, failing either of these, the sea.

We had not travelled more than five or six hours in this way when we struck a pretty distinct trail, following which for five or six miles, we came upon an old cattle-pen.

By this time dark was beginning to fall, and the constable

was anxious to press on, in the hope that we might hit a settlement before night and get some food ; this, however, I vetoed, as I had had enough of trying to follow a trail in the dark, so, hungry as we were, we camped at the old cattle-pen for the night.

Next morning dawned beautifully fine, and we set out as soon as the light enabled us to see the trail ; after a few hours the pine ridge gave place to low bush, which suddenly opened out into a fine savanna, in the midst of which we beheld the welcome sight of the settlement of Churchyard.

I draw a veil over our first meal, which consisted of johnny cakes, crisp slices of bacon, and mushrooms fresh from the savanna !

Since then I have never gone into the bush without a compass, as in the rainy reason one never knows for how long at a time both sun and stars may be invisible.

CHAPTER III

Payo Obispo—A well-staffed colony—A desolate bay—We discover the stela—A glorious surprise—Stela dated A.D. 333—Weird sounds in the bush as we turn the stela over—Situation of the stela within a vast fortified space—An island, sportsman's paradise—Mosquitoes and red bug—Curious superstition attaching to the ruins—Another version of the pot of gold at the rainbow end—Date on stela shows Maya occupied this territory centuries before it was supposed to be inhabited at all—Discovery may upset the entire Maya chronology—An American empire, the most densely populated spot in the world during the fifth century A.D., now a desolate wilderness—Various explanations to account for the discrepancy between the date recorded on the stela and the usually accepted date for the founding of the Maya New Empire—At least five Maya civilisations, of different dates, seem to have centred at Ichpaatun, the name suggested by Dr. Morley for the new site—Tuluum style civilisation stops suddenly just north-east of Ichpaatun—Possibility of finding Maya Rosetta stone in ruins of old Spanish church, just north of Ichpaatun—A great cemetery of the upper class, belonging to some Maya city, with beautiful jewels and pottery, but no trace of the city, unless it is buried in the bush in the vicinity.

PAYO OBISPO, the capital of the Mexican territory of Quintana Roo, has sprung up quite recently as a town, for I can remember but a few years ago when it was only a dismal uninhabited swamp, covered with scrub and sour grass, interspersed with stagnant, scum-covered, brackish pools, the haunt of bull-frogs, alligators, and black vultures.

It is now a considerable-sized town, laid out with great precision in broad, imposing boulevards, many of which are still but unaltered sections of the original swamp, into whose sink-holes an auto can almost disappear.

The most over-staffed British colony cannot compare with it in the number and variety of officials. First comes the Gobernador del Territorio, with his secretario and staff, then the Commandante Militar, and Jefe de Flotilla, and

their numerous officials, for it is both a military and naval station. Then Juez Mayor, or Chief Justice, and several Juezes Menores, or Puisne Judges, the Administrador de Aduana, or Chief of Customs, and his large staff, the Tesorero, or Treasurer, and his subordinates and clerks, the Harbour Master, Inspector of Schools, Postmaster-General, Chief of Police, Inspector of Woods and Forests, Principal Medical Officer, all with their staffs, not to mention the Mayor, and numerous members of the municipality, and all in a town of about two thousand inhabitants.

No wonder governmental work is the principal—in fact, almost the only business of the place; indeed, nearly all the best houses are either the private residences or the offices of the innumerable officials.

But it cannot be said that all these officials do nothing for their money. On landing, we were inspected by the Customs' officials, and the little motor-boat turned upside down, the only dutiable article on board, fortunately, being half a bottle of Chianti; after this our passports were viséd, and we visited the Aduana.

Muddy and James were then haled off for medical inspection, during which they were vaccinated, but a timely rubbing of the affected spot with alcohol prevented any unpleasant after-effects.

I, as a medical man, escaped vaccination, and went off to interview the Harbour Master, from whom I obtained a permit to visit Uberos, a desolate spot thirteen miles north, on the Chetumal Bay, where Antonio Ricalde, who accompanied us, had seen, as he had told me, a great stone with hieroglyphics upon it.

Having undergone so many disappointments in the search for ruins and hieroglyphics, I was, however, quite prepared in this case to find a great stone with natural markings upon it.

At last, all formalities having been complied with (and it must be admitted that we met with nothing but the utmost courtesy and kindness from the Mexican officials, the little red tape incidents being only such as are

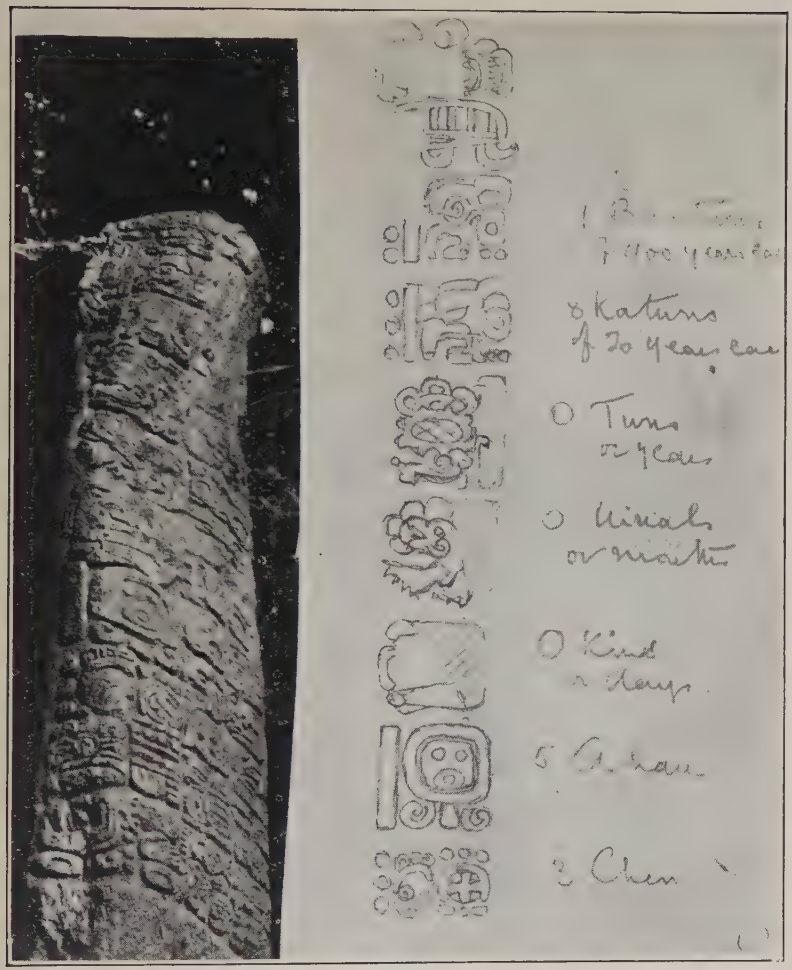
encountered nowadays at all civilised and many uncivilised ports), we started up the Chetumal Bay, a great stretch of water running almost due north and south into Quintana Roo for thirty miles. It is probably one of the most desolate expanses of water in the world, as its shores, with the exception of a few Maya huts, are entirely unpeopled.

About thirteen miles from the mouth of the Bay we arrived at a spot where an Indian had made his corn plantation, and, landing there, came, after a short walk through the bush, to the stone we were searching for. This proved to be a block of greyish schist, 12 ft. long, 18 ins. broad, and 12 ins. thick. It had evidently at one time stood upright, but was now almost flat on the ground, in which the greater part of it was buried. Upon the exposed side were traces of sculpture, but the greater part of this had been weathered smooth.

We dug all round the stone to clear it; then, with the aid of two Indians whom we found working on their *milpa*, succeeded, with considerable difficulty, in turning it over by means of levers improvised from stout saplings cut in the adjacent bush; and what a glorious surprise awaited us! There on the under-side, almost perfectly preserved from long burial in the earth, was the Maya Initial Series date 9.8.0.0.0.—or A.D. 333.

This is the fourth Initial Series date found in the whole of Yucatan, and nearly three centuries older than any of the others. There were a number of other glyphs, but these were unfortunately unknown, some recording, no doubt, the nature of the events which occurred during the Katun, or twenty-year period, the end of which the stone was put up to commemorate.

From the left-hand top corner a great piece had been chipped out of the stone, and it was pretty obvious that at some period, probably more than a thousand years ago, a giant tree had fallen upon it, knocked it down, chipped a piece out of it and in so doing preserved the hieroglyphics almost intact for future generations.



Stela recording Date corresponding to September 26th, 333.
Chetumal Bay

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We succeeded in turning the stone over just as the sun was setting and darkness was shrouding the dense bush, and at that very moment a weird ululation echoed through the silent forest, apparently just to the north of us.

The Indians were scared stiff, but I suggested that it was one of their dogs which had got snake-bitten; this proved not to be so, however, as all four of the animals were found cowering beside us, their tails between their legs, whimpering with fright.

The noise soon ceased, but no explanation of it was ever forthcoming, but it was, I think, made by one of the numerous weird night-flying birds which hunt this unexplored tract of virgin bush and the shallow, yellow waters of the great land-locked bay.

We took the Indians on board the *Booksie*, but since accommodation was limited and left no room for tick-spangled, flea-infested animals, we left the hunting dogs on the shore to find their way home by land, as they were well used to doing when their owners came to the plantation in their own dug-outs.

On this occasion, however, they sat on their haunches on the beach, and howled dismally as we got farther and farther away, nor would they move as long as we were in sight. Of course their owners asserted that they sensed the presence in the darkling patch of bush, through which they had to pass, of *pishan*—or beings of another world—whom we had disturbed by uncovering the monolith.

To the east the peninsula which separates the Chetumal Bay from the Caribbean is entirely unknown and unexplored, while to the west the land which separates it from Bacalar lagoon is uninhabited, and traversed only by chicle hunters searching after sapodillo-trees.

The stela was found to stand 80 ft. to the south of the central unit of a group of three great mounds, which was built of roughly squared blocks of limestone. This mound was 32 ft. high, and terraced with three terraces. The flat top measured 135 ft. by 64 ft.

The mounds stood at one extremity of a great enclosure, describing a segment of a circle, whose chord, about 1½ miles long, was formed by the coast, from which it extends back for more than a mile. They were bounded by a stone wall 6 to 12 ft. high, and 12 to 15 ft. thick, which, like those surrounding the ancient Maya cities of Tuluum and Mayapan, evidently was a protection against enemies coming by land.

The space included in this enclosure was apparently at one time densely populated, for the earth is literally covered with potsherds, and flint and obsidian chips, amongst which are innumerable small objects—animal figurines and heads, malacates, or spindle-whorls, arrow-heads, obsidian knives, shell and pottery beads, etc.

A curious superstition attaches to these mounds. The Indians say that, standing on the centre mound, a cock may frequently be heard crowing on the summit of one of the others, but that, if one goes to the summit of either of the side mounds, the sound seems to come from the central mound, so it is impossible to locate it, but, were one able to do so, one would find a great treasure buried at the spot—another version of the pot of gold at the rainbow end, which, in one form or another, was probably a favourite tale of palæolithic man.

This piece of land is most extraordinarily fertile. The Indian who makes his *milpa* within it year after year told me that he got regularly four cargoes of corn to the *macate*. Now at Chichen-Itza, in Yucatan, the largest ancient Maya city known, one cargo to the *macate* is considered a fair crop, which means that these lands would support four times the population, and call for only one quarter of the labour in food production. No wonder the district was densely populated in ancient times, and it is difficult to imagine why it should be entirely depopulated and deserted at the present day.

The mosquitoes around the ruins and stela were of the striker variety, immense creatures with a proboscis stiff as a needle and a quarter of an inch long, and capable of going

through khaki trousers, as if they offered no obstruction at all.

My waist-line and the inner sides of my thighs were covered with red, itching bumps, as a result, notwithstanding the gasoline and tobacco, of the previous day's red bug attack, and now the portions of my anatomy spared by the red bug, as being covered with skin too thick for them, were being tapped by the strikers, who can manage to draw sustenance even from the sole of a negro's foot, which is usually too tough for anything except a cockroach to tackle.

We put in for the night at a little Indian village, and soon after arrival I realised from the itching around my waist, and on the inner side of my thighs, that I had acquired a crop of red bug in the bush, and, on stripping, found nearly a hundred angry red blotches, with a raised white spot in the centre of each, on which, with a low-power microscope, the tiny red bug could be seen comfortably burrowed into the skin. A good bath in tobacco-leaf and gasoline mixed, however, soon loosened them all, and I was enabled to get a restful night.

Next day we made an early start, and, passing between the island of Tamalcab and the mainland, soon arrived at Uberos and the stone. This island is about five miles long, covered with dense bush, and without a single inhabitant.

It should be a sportsman's paradise, for it literally swarms with gibnut and armadillo, which, owing to the absence of their natural enemies, jaguars and pumas, for whom the swim from the mainland is rather too far, have multiplied to an extraordinary extent. There are also numbers of good game birds, curassow, quam, and parrot, while the neighbouring waters swarm with duck and teal, so tame that they will let a boat almost touch them.

The importance of the Ichpaatun discovery can hardly be exaggerated. The date recorded is 9 Baktuns of 400 years each, 8 Katuns of 20 years each, 0 Tuns, or years, 0 Uinals, or months, and 0 Kins, or days, after the date 4 Ahau,

8 Cumhu, the commencing date of Maya chronology, falling upon a day 5 Ahau in a month 3 Chen and corresponding, according to Spinden's correlation, to the date 26th October, A.D. 333.

Only four Initial Series dates, as has been stated, have been found in all Yucatan, and this is earlier than the next earliest by nearly three centuries, and therefore shows, if it be contemporaneous, that the Maya had already got a firm foothold in this part of the continent centuries before it was supposed to have been inhabited at all.

It may cause a complete revision in the ideas usually held as to the migration into Yucatan, and the foundation of what is known as the Maya New Empire in that peninsula —in fact, of the entire chronology of the Maya, the most advanced civilisation in the American continent, and in many ways the highest civilisation the world has ever known.

The dated stela may also throw light on the age of the vast structures as Lubaantun, where no date has yet been found, as the architectural technique at both places is almost identical, and they are separated only by about a hundred and fifty miles. This epoch-making discovery will be followed up by a complete exploration of the site, which, owing to the fact that it is covered with dense bush, will be no easy task.

Dr. Morley, probably the first authority on the Maya, says in his *Introduction to the Study of Maya Hieroglyphics*, "There is strong documentary evidence that about the middle or close of the fifth century the southern part of Yucatan was discovered and colonised"; and again, in his *Chichen-Itza, an Ancient American Mecca*, "About the time the western Roman Empire was falling to pieces in the Old World there took place, in the New World, an event which was profoundly to affect the history and fortunes of America's most brilliant aboriginal people, the discovery of Yucatan by the Maya, some time between A.D. 471 and 530.

"For perhaps a thousand years prior to this date the

Maya had been living in the region now included in the States of Chiapas, and Tabasco, in Mexico, the Department of Peten, in Guatemala, and just along the western frontier of Honduras. Here a magnificent civilisation had been developed.

"This region, now overgrown with a dense tropical forest, had been cleared and put under an intensive cultivation. Great cities had flourished on every side. Lofty pyramids, temples, and splendid palaces of cut stone, spacious plazas, and courts filled with elaborately carved monuments, of strange yet imposing dignity, market places, terraces, causeways were to have been counted, not by tens and scores, but by hundreds and thousands.

"Indeed it is not improbable that this was one of the most densely populated areas of its size in the world during the first five centuries of the Christian Era, the seat of a mighty American Empire."

Yet here we have evidence that this Chetumal site, for which Dr. Morley has suggested the name Ichpaatun, meaning in Maya "stone within a fortification," in southern Yucatan, was not only occupied by the Maya nearly two centuries before the time generally supposed, but had been occupied for some considerable period prior to this, for the stela was erected to record the events which had occurred in the Katun, or twenty-year period, previous to its erection.

Various explanations are forthcoming as to these apparent discrepancies in Maya chronology, which this stela appears to indicate:

First, the stone may have been removed some centuries after the date recorded upon it from some other Maya city of the Old Empire. This hypothesis may, I think, however, be safely rejected, as the great weight of the stone itself, the distance over which it would have to be carried, and the absence of the necessary mechanical devices for the purpose, amongst the Maya, would practically render it untenable.

Second, the date upon the stela may not be a contemporaneous date, but, like so many other monoliths erected

by the Maya, may record some event of importance in their past history, which is brought down to the contemporaneous date by the introduction of what are known as secondary series, or dates. Against this is the fact that no trace of secondary dating is to be found on the glyph-bearing face of the stone, and the opposite side was apparently covered entirely by a human figure in low relief.

Third, the correlation between Maya and Christian chronology, suggested by Drs. Morley and Spinden, may not be the correct one, and it must be admitted that this early record of the occupation of Yucatan fits in better with the correlation suggested by Bowditch, and accepted by Joyce and Long.

Fourth, Ichpaatun may have been a small Maya colony, formed in this remote region a couple of centuries before the general exodus from the Old Empire into Yucatan took place. This last appears to me to be the most probable explanation, for the Old Empire city of Tikal, dating from 9.2.10.0.0., or A.D. 225, is but little over a hundred miles to the south of Ichpaatun, while Naranjo, dating from 9.7.10.0.0., or A.D. 324, is about the same distance.

It is not at all improbable that wandering bands from one or other of these great cities may have set out to investigate the unexplored lands to the north, and may have there formed a settlement which, judging by the fact that up to now only one stela has been discovered, was not entirely a success, and did not last very long, and later they may either have completely died out, as Maya settlements appear to have had a habit of doing throughout their whole history, or may have returned to their native cities.

Ichpaatun, apart from its very early stela, is in other respects a site of extraordinary interest, for it appears to have occupied a curious and unique position in the Maya area, around which several separate and distinct branches of the Maya civilisation, dating from the Old Empire to post-Columbian times, are grouped. No one of these appears to have transgressed the territory occupied by the

other, though they are sometimes separated by only a few miles.

Fifty miles or so to the north-east, on the east coast of Yucatan, and separated from Ichpaatun by the Chetumal Bay and the isthmus which forms its eastern boundary, is the last of those curious structures, belonging to what is known as the Tuluum, or east coast, civilisation.

This consists of a little two-storied shrine, solidly built of stones and mortar, and covered with stucco. The upper story is 3 ft. 4 ins. high, 4 ft. long, and 3 ft. 10 ins. broad, with a single small doorway facing due west; the lower, 6 ft. 9 ins. long, and 6 ft. 4 ins. broad, had doorways in all four sides. Through the centre of the lower chamber passed an oval column of masonry, leaving an extremely narrow oval passage all round the little room, into which the doors opened.

These small buildings are common all along the east coast of Yucatan, and give rise to the belief that the people who built them were a race of dwarfs, for no one else would have been able to enter them; but, as a matter of fact, they were probably small shrines, used by wandering fishers and hunters, upon which to make offerings to their gods for good luck and favourable weather.

This is the southernmost of these shrines, and both they and the other buildings which go with the Tuluum style culture, some of which will be described later, come suddenly to an end at this point, where they give place to an entirely different style of architecture.

A few miles to the north of Ichpaatun, close to the shore of the Chetumal Bay, lie the ruins of an old Spanish church, dating probably to the middle of the seventeenth century, when a small Spanish colony was formed here, which, however, did not last long, perhaps owing to the hostility of the neighbouring Indians.

Now, some of the Indian priests around the Chetumal Bay at this period must have been acquainted with at least the more important Maya hieroglyphs, for we know that

at Peten Itza, at no great distance from the bay, in the years 1696–8, at the time of its conquest by the Spaniards, in a joint expedition from Guatemala and Merida, the native priests were not only found in possession of some of their ancient books of hieroglyphics, painted on maguey paper, covered with a slip of lime, but were actually able to read them, and explain the prophecies which they contained.

But if the Maya priests could read these ancient hieroglyphic books, it is not improbable that the Spanish padres could do so also, for, if bigoted and intolerant, they were at least neither dull nor incurious, and in order to carry out their mission of proselytising the Indians a knowledge of the Maya language was absolutely essential.

The roof of this little church has fallen, but the walls are still almost intact; moreover the space in front of the high altar, where bishops, abbots, or even ordinary priests were usually interred, is undisturbed, instead of having been excavated by treasure-seekers, as is the case in so many old, deserted, Spanish churches.

I have often thought that it might well repay one's time and trouble to excavate either beneath the foundation-stone or in front of the high altar of the ruins of this church, for I am firmly convinced that only in some such place as this is it possible that a key to the Maya glyphs, in fact a Maya Rosetta stone, may be discovered.

Even were an original Maya codex, in sufficiently good preservation to be readable, discovered in a grave, temple, or choltun, or underground chamber, it would most certainly not be accompanied by a Spanish translation, for none of the Maya priests at the time of the conquest, or for the hundred and fifty years or so afterwards during which the hieroglyphics were still in use, would have been likely to understand written Spanish, whereas the Catholic priests made it their first business to learn the language of the natives, so some of them must have been in a position to compile a list of the common glyphs, with their Spanish equivalents.

Unfortunately, however, all Maya manuscripts were regarded with suspicion by even the most enlightened of the Fathers as being works of *el Diablo*, and tending to lead the Indians back to their ancient idolatrous customs, as witness the holocaust of native codices which was ordered by Bishop Landa of Yucatan, in which all Maya manuscript material discoverable throughout the peninsula was burnt at an *auto da fé*—one of the most infamous acts ever committed by any human being.

On this account, therefore, I fear the chance of finding a Maya Rosetta stone in the ruins of an ancient church, built before the meanings of the glyphs had been lost, is but a slender one, unless, indeed, the proximity of the sacred edifice may have been presumed to purge it of all taint of his Satanic Majesty.

Some ten miles to the west of Ichpaatun, close to the mouth of the Rio Hondo, is a large aggregation of burial-mounds of all sizes, some containing two, some three, stone-lined sepulchral chambers, superimposed one upon the other, from which I removed some very beautiful painted pottery, jade, and other jewellery, with implements and weapons.

In one of these mounds, an exceptionally large one, the base was occupied by a series of small stone cysts, each containing a very large, wide-mouthed pottery jar, with cover, within every one of which a human skeleton was found. Around the jar, within the cyst, were placed weapons, ornaments, and pottery belonging to the deceased. This was, I may say, the only occasion upon which I had found this type of burial in the Maya area.

A beautiful, polished, black ware urn, containing human bones, and evidently a cinerary urn, was also unearthed. Upon it was stamped in low relief a complicated design portraying a naked human figure in the prone position—possibly the deceased—with representations of the gods Cuculcan and Itzamna, and highly conventionalised fish and birds.

Upon another pot was painted, within an oblong panel, a line of six hieroglyphs, below which were depicted six

extraordinary mythological creatures, two apparently representing birds, two reptiles, and two insects. The glyphs were entirely unknown, and, as they possessed no numerical coefficients, it may be taken for granted that they had no calendric significance. Whether they referred to the monstrous creatures beneath it is impossible to say, though the fact that both were six in number would rather suggest some connection.

The whole of this area was literally covered with mounds, apparently all, or nearly all, sepulchral, and all erected over persons of the higher classes—at any rate, those with valuable possessions, for every one of them contained a rich treasure of pottery, jade, pearls, obsidian, etc., though no trace of any metal object was discovered. It was, in fact, a cemetery devoted exclusively to the upper or wealthier class. But to the upper class of what city, and what period?

Some of the stamped, polished, black pottery was extraordinarily like that found at Holmul, a Maya Old Empire site, small fragments of which have also been found by us at Lubaantun, which would suggest that they were trade pieces, and that they had reached each of these cities from outside. As to their place of origin, it is impossible in the present state of our knowledge of the distribution of Maya ceramics to hazard even a guess.

The hieroglyphs upon the second vase were almost undoubtedly of Maya origin, and that they had not been used merely as a decorative motive was indicated by the fact that there was no repetition, as is usually the case when glyphs are used in this way. They were, indeed, unique, and might, so far as their decipherment was concerned, have been inscriptions in some other language.

Here then we have a great cemetery for the people of the higher class of some Maya city, but no trace of the city, unless it is buried in the bush somewhere in the vicinity, and only the most contradictory evidence afforded by the objects recovered as to the period to which it belonged.

Black Pottery from Burial Chamber, S. Antonio Rio Hondo

Painting on Vessel Found with Burial in a Cyst

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CHAPTER IV

The island civilisation to the south-east of Ichpaatun—Signs of cannibalism—A peculiar god of their own, wearing a base-ball mask—People in a very low cultural state, lived almost exclusively on sea food—Toltec ruins to south of Ichpaatun, with curious figurines of men and animals, and painted stucco wall representing the conquest of this region by Toltec troops—Indian church—Life led by bush Indians when undisturbed—Curious habit amongst the Maya, for nearly 2,000 years, of deserting their old settlements, with their splendid temples and palaces, to settle in new localities, without apparent reason—A Toltec serpent column re-used as a Maya stucco-covered stela—Did the Maya, of as little as a century ago, still erect stelæ and understand the glyphs; and was the belief of Stephens in a still flourishing Maya city justified?—An opportunity of seeing possibly the last stela ever erected by the Maya—Only intensive exploration around Ichpaatun can elucidate the mystery of the various civilisations converging at this point.

Some thirty-five miles to the south-east of Ichpaatun is the large island of San Pedro, belonging to the colony of British Honduras. Here I excavated a number of mounds belonging to the Cay, or Island civilisation, which in many respects differed materially from any of those known on the mainland.

The mounds were for the most part kitchen middens, composed of enormous numbers of conch, cockle, whelk and oyster shells, turtle carapaces, crab and crayfish shells, and vast quantities of the bones of such fish as inhabit the surrounding waters.

Amongst these were numerous potsherds, all of the coarse, red and grey, domestic varieties, broken flint spear-heads in great numbers, with a few broken obsidian knives, and greenstone celts, many stone and pottery net sinkers, and a few broken hand corn mills of Esquipulas stone.

There were also found the bones of a few small mammals,

including the gibnut and armadillo, but none of deer or wild hog, such as are usually found at most Maya sites on the mainland.

Perhaps the most curious and significant find of all was the right half of a human lower jaw-bone. This was discovered amongst a quantity of fish-bones, and the fragments of a clay saucer, near the centre of one of the kitchen middens, and was contained in a little nest, surrounded by conch shells, which had been thrown in on top of the human fragment and fish-bones.

The construction of these kitchen middens was extremely interesting, for one could distinguish, not only from day to day, but almost load by load, the various baskets of rubbish which had been thrown upon them by the housewives from the neighbouring huts.

I am afraid we must accept this fragment of human jaw as strong presumptive evidence of cannibalism, for several burial-mounds were excavated, in which the bones were undisturbed, the skeletons lying upon their backs, with their few poor possessions scattered around them, and food offerings in pottery receptacles provided for their journey to the next world, indicating the usual method of burial amongst these people.

A second mound was excavated, which had been built over the ruins of a small stone chamber. Nothing was found within it, but beneath the centre was discovered a round saucer for burning incense, with a long handle, and a curious figurine in clay, whose face was covered by a peculiar grilled arrangement, more resembling a base-ball mask than anything else, which was studded with rosettes. These articles were both painted red and blue, and no doubt had some religious significance ; probably the figurine represented the god of these fisherfolk, though he bears no resemblance to any Maya god with whose characteristics I am acquainted.

It is, however, possible that the grill-like arrangement in front of the face may represent the Maya serpent's head,

so frequently recurring in their art, in the act of swallowing a human being. If so, it is so highly conventionalised in this instance as to be only recognisable by the eye of faith.

The people of this island civilisation, it would appear then, lived almost exclusively on products of the sea; they hardly ever visited the mainland to hunt, as the absence of bones of the larger mammals proves conclusively, and they, at least occasionally, practised cannibalism, though whether only on captured enemies, or amongst themselves in times of famine, and whether merely for ceremonial reasons (as was the case amongst the Aztecs and later Maya), it is impossible to say.

They possessed at least one specific deity of their own, and they probably lived on the cays along the coast of Yucatan and British Honduras, from the conquest of Chichen, towards the end of the twelfth century A.D., up to a couple of hundred years ago.

Culturally these people must have been very low in the scale, for the conches which constituted their principal article of diet could be picked up by the hundred thousand anywhere along the coast. Their pottery was of the crudest, as were their implements and ornaments, and they built no stone houses or temples, with the exception of the one already referred to.

Indeed the cay affords but little opportunity for cultural development, for it consists merely of a broad fringe of sand around the coasts, with barren swamps in the centre, amongst which are large salt-water lagoons, interspersed with a few patches of higher land, where the mounds are usually situated, and where no doubt the inhabitants were able to raise a very limited quantity of maize.

Some twelve miles almost due south of Ichpaatun, within the colony of British Honduras, exists a great aggregation of mounds of all sizes, many of which I have already excavated.

Some of them are burial-mounds, some are platforms

for the support of houses, one is a great look-out pyramid, at the base of which is a circumvallate earthwork, into which the people of the settlement could retire when the approach of enemies had been observed from the summit of the pyramid.

Several of the burial-mounds contained, in cysts, excavated in the earth beneath the centre of the mound, large clay urns, in which were found great numbers of rather crude little pottery figurines of men, and animals, usually painted red and blue. These included tigers, turtles, snakes, alligators, and various mythological dragon-like creatures.

The figurines of men showed them occupied in their usual avocations; some were carrying macapals on their backs, others were wielding fans, others were eating; warriors with extended spears, their shields held in front of them, were crouching on one knee, awaiting the attack of an enemy, and priests, sitting on stools, were performing ceremonial self-mutilation on their genital organs, with great flint knives.

But the most interesting mound in the whole group was built over a small ruined temple, with walls beautifully painted in such a way that the rain was excluded from the painted surface, upon which the colours were almost as bright and fresh as upon the day it was deserted. The painting represented a number of bound prisoners, each with a Maya glyph by his side, all of which were Ahau signs with numerical coefficients.

The figures themselves were unquestionably of Toltec origin, as many Toltec signs, unknown to the Maya, were present. The whole probably represented the Toltec conquest of this region, Maya hieroglyphics being used to designate the events which had occurred during each of the twenty Tuns, or years, of a certain Katun, or twenty-year period; unfortunately, however, as the numerical coefficient of the Katun, or twenty-year period, was not given, it is extremely difficult to tie the events recorded

accurately into Maya chronology, but that the temple was erected somewhere between the middle of the thirteenth and the middle of the fifteenth century, there can be no reasonable doubt.

Still farther south from Ichpaatun we came across the extensive group of mounds, with a single small stone building, known as Indian Church, on the New River lagoon, in the colony of British Honduras.

The mounds were of all sizes, varying from 4 or 5, to 50 or 60 ft. in height, and were very crude affairs—truncated pyramids for the most part, composed of blocks of unhewn stone and earth. Nearly all were burial-mounds, and from the condition of the bones, and the character of the funerary objects, it was obvious that they belonged to the last degenerate phase of the Maya civilisation, many of them going back little more than a century, or a century and a half, when bush Indians, who never had any contact with civilisation, still lived in their villages, shut in within the dense impenetrable forest of this remote part of the colony, very much the same sort of lives their ancestors lived one thousand years before.

They cultivated their small plantations, on which they raised corn, beans, tobacco and cotton, hunting the bush for game and wild honey, and the streams and lagoons for fish and fresh-water turtle, never coming in contact with the logwood and mahogany cutters, the only trespassers on the fringe of their domains, and retiring ever deeper and deeper into the fastnesses of the forest, as year by year, civilisation, rum, and the missionary, encroached more and more upon their privacy; until at the present day not a single one of their villages remains in this part of the colony, where, as is indicated by the vast number of mounds covering the region, a very considerable population must have once existed.

This is borne out by Father Fuensalida and other Catholic priests, who made the journey from Merida in Yucatan to Tipu, the last outpost of the Spaniards, a large Indian

village on the banks of the Mopan river, in British Honduras, now occupied only by a few mahogany-cutters.

They travelled by way of the New River early in the seventeenth century, meeting with the most exciting and surprising adventures, not to mention quite a number of miracles on the journey.

The Fathers describe numbers of villages, giving their names, all along the route, and they also mention the curious habit of the Maya, as prevalent amongst them 2,000 years ago as it is to-day, of deserting their villages and settlements, apparently quite capriciously, leaving behind their invested capital in temples, palaces, monoliths, etc., and settling in some quite new locality, perhaps many miles away.

It was indeed not improbably this extraordinary, and to them, apparently irresistible impulse, which led to the desertion of the Maya Old Empire and the foundation of the New Empire, in what appears to us to be a far less favourable environment.

By far the most interesting structure in this ancient settlement was the little building which had given it the name of Indian Church. The walls and part of the roof were still in an excellent state of preservation, and the entries were surmounted by true arches, which placed its erection, without the slightest doubt, in post-Columbian times, for the true arch was not known to the Maya architects, a fact constituting one of the main reasons for the instability of their buildings.

I came across this structure quite by accident; a very old resident of Corozal, who in his younger days had traversed the bush in all directions, asked me if I had ever visited Indian Church. I said "No."

"Well," he replied, "you certainly ought to see it, for, though it is nearly fifty years since I was there, I can remember the big tombstone in the bush by the side of the church, all covered with curious devices, painted in different colours."

This was quite enough for me, and I started out for the place as soon as opportunity offered.

He was right about the "tombstone," but alas! it was no longer white, and no longer covered with curious figures. It was a solid slab of stone, standing some 5 ft. out of the ground, rather well sculptured to represent a gigantic snake's head. It was, in fact, the head of one of those serpent columns, used by the Toltecs to form the door-posts of their temples, which had been later re-used in this situation as a stela. The temple to which it had belonged had entirely disappeared, and its stones had possibly been used by the later inhabitants in the construction of their "Indian Church."

I at once proceeded very carefully to dig up the stone, when what was my astonishment to find that the lower foot or so of it, which had been buried in the ground, and so better preserved than the upper part, had been covered originally with three layers of white stucco, superimposed the one over the other, and that upon each of these layers were distinct traces of painted devices in various colours!

My friend's account had undoubtedly been true, only what he took for a tombstone had been nothing more nor less than one of those stucco-covered stelæ, sometimes used by the Maya to record the passage of 5-, 10-, 15- or 20-year periods, instead of the usual sculptured stela.

In my mind there is little doubt but that, hardly more than a century ago, there existed in this part of British Honduras Indians who were still not only able to read the glyphs as used in the New Empire, but were actually able to erect dated time-markers, and that my friend saw probably the very last of these, and had an opportunity which will never again occur to anyone on earth, of possibly finding an exact correlation between the Maya and Christian calendars, by a Maya priest who was conversant with both.

After all, there is nothing so very improbable in this idea, for we know that in Peten, only a few miles away, up to the time of the Spanish Conquest, at the very end of the

seventeenth century, the glyphs were well understood, and sacred books in Maya characters still existed.

This part of British Honduras was peopled by refugees from Peten Itza, after its conquest, endeavouring to escape from the Spanish rule, in the early part of the eighteenth century. Here in the fastnesses of the bush they lived undisturbed by either Spanish or British, till the middle of the nineteenth century, when the War of the Castes brought a number of Yucatecan refugees in to escape the Indian massacres. It is therefore quite conceivable that, up to the early part of the nineteenth century, they still retained the ancient lore, which their priests must have brought in with them after the conquest of Peten.

The American explorer, John Stephens, who, visiting the country nearly a hundred years ago, heard and credited rumours to the effect that there still existed, in the depths of the bush, a Maya city, where the old religion was practised, and the ancient customs adhered to, may not have been entirely mistaken in his belief, for we find here an actual return to the old Maya religion, a previously existing Toltec temple having been torn down and utilised to build the Indian Church, furnished with true arches, the secret of which the Maya architects had no doubt by that time learnt from the conquerors, while the horizontal head of one of the serpent columns was covered with stucco, and re-used as a Maya stela. Truly an extraordinary combination!

We see, then, grouped around Ichpaatun, which is almost certainly an Old Empire Maya settlement, dating from A.D. 333: (1) To the north-east, the Tuluum, or East Coast civilisation, dating from A.D. 1250 to the Conquest, which appears to come to an abrupt end at this point.

(2) To the west, an extensive Old Empire Maya cemetery, at present undateable, belonging to no city as yet discovered.

(3) To the south, a well-developed Toltec colony, occupying a comparatively small islet amongst the

surrounding Maya tribes, and probably dating between the thirteenth and fifteenth centuries A.D.

(4) Further south, a very late settlement of Itzas from Peten, possibly the last site on earth where a commemmorative stela was erected.

(5) To the east, a crude and degenerate late Maya civilisation of fisherfolk, which lasted possibly up to the early part of the eighteenth century.

In the present state of our knowledge, comment on the remarkable diversity of cultures centring at this point is useless; nothing but intensive work in exploring the forest in the neighbourhood, and excavation in the innumerable groups of mounds scattered through it, can be expected to throw any light on the problem.

CHAPTER V

Leave Belize for Yucatan—A Norwegian tramp—An uncomfortable trip —Troubles in landing at Progreso, the port of Merida—My last trip over the Progreso–Merida road with Felipe Carrillo, Governor of Yucatan—His depression on this occasion and terrible fate at the hands of revolutionaries shortly after—Arrival in Merida, now a popular resort owing to its easy divorce laws—Lawyers touting for divorce cases in Progreso and Merida—Amusing tales of divorce in Yucatan—A curious game played by the gamins in Merida—Arrival in Dzitas—Transitional state of the town—Pity of the Maya girls giving up their ancient costume and adopting modern fashions—The social changes taking place rapidly in Yucatan under the new regime—Indecent sketch on church wall at village of Pistè left undisturbed—A curious church doorstep—An intriguing female skull, with its auburn hair still attached—Arrival at Chichen-Itza—An appreciation by the modern masons of Yucatan of the work of the ancient builders—A great undertaking in archæology—The newly excavated and magnificent " Temple of the Warriors "—Sculptured, painted columns—A great altar borne on the heads of Atlantean figures—These figures probably portraits of Toltec priests and rulers of Chichen-Itza—Both chambers of the temple must have been very dark—Sculpture on the main façade of the temple—Chacmool figure in front of the temple—Uses to which this great building was put: temple, royal reception chamber, or Hall of Justice?—New temples and dates at Chichen-Itza—The most interesting American building in existence.

I LEFT Belize on the 22nd January, 1926, on the s.s. *Honduras*, one of a fleet of Norwegian tramps employed in picking up bananas along the Central American coast, and carrying them to the United States.

Incidentally, these little Norwegian tramps carry four passengers, but I should not recommend them for a pleasure or health trip, as officers and crew are all Norwegians, and the fare provided is strictly that of the " Fatherland " —salt fish, cod's roe, sardines, and prune and apricot soup, well sweetened, the first spoonful of which, if it comes as

a surprise, is usually as good a remedy for sea sickness as a glass of salt water, or the proverbial piece of salt pork at the end of a string.

We arrived in New Orleans on the 26th, where I visited the new Middle American Archæological Department of the Tulane University to see the splendid collection of drawings and photographs made by Mr. Blom of the department, to illustrate his recent trip through parts of Central America and Mexico, hitherto archæologically unexplored, which resulted in the discovery of at least seven new Maya dates, and two important new sites.

Leaving New Orleans on the 31st in a small, mean, dingy tramp, weeping iron rust at every joint, whose cargo consisted mainly of cattle and smell, we arrived at Progreso, the port of Merida, capital of Yucatan, on the 3rd February.

We anchored in the open roadstead during the early hours of the morning, as there was no vacancy for us at either of the wharves, and consequently had to wait till about 7.30 for the Customs and other officials to board.

Only one small motor-boat, it appeared, was permitted to take passengers ashore, the owner of which had become an absolute autocrat, and could take one off when he felt inclined, and charge what he liked for doing it.

He picked out the passengers with only light hand baggage for the first trip, and graciously informed me that I might come along if I left my heavier baggage till later; but I have had enough experience of Central American travelling to know that it is never safe to be separated from one's luggage, so declined.

There are but two trains from Progreso to the capital daily, one at 10.30 a.m., the other at 5 p.m. We were all particularly anxious to get off on the first train and secure rooms in Merida, as we had heard that, owing to the inauguration of a new Governor of the State, all the hotels were full up.

The first boat-load of passengers managed to catch the 10.30 train, but the boat proprietor, feeling that this was

about as much as could be expected of him in the way of exertion in one morning, even by the unreasonable Gringo and Englishman, determined to await the arrival of the next steamer, and kill two birds with one stone, by boarding both together. Fortunately for us, about 11.0 another small tramp arrived, and the shore boat, after boarding her, called for us.

The " patron " was greatly surprised at our indignation at having missed the 10.30 train, and remarked that if the Aduana, or Custom House, had not closed when we got in, we should certainly catch the 5.0 p.m., and even if we missed this, there was a comfortable hotel in Progreso, and we could make sure of the first train " mañana."

Luckily, when we arrived the Aduana had not closed, and soon after noon (we had anchored before 6.0 a.m.), all formalities were complied with, and we were free of the country.

Truly did a fellow-passenger, a native son of Yucatan, who had acquired some " pep " as a knight of commerce in the U.S.A., remark that, following the present vogue for changing the names of capitals, the town should be renamed " Retrogreso."

Rather than wait for the evening train, I, in conjunction with a young engineer, a fellow-passenger, who was also going to Chichen-Itza to install electric light and an ice-machine for the Carnegie Institution project, hired an ancient Ford to convey us to Merida.

The driver seemed rather uncertain as to the distance, which he gave as 24 miles, 12 leagues, or 50 kilometres. Not one of these distances agrees with the other, and as we discovered later, not one of them was right.

As we ploughed through the mud holes and jolted over the boulders of the execrable road, every nut and screw in the 1910 model Potingo—the name by which the Ford is known throughout Yucatan—groaning and squeaking under the strain, I could not help thinking of the last time I made this journey with Morley, in the car of the then Governor

of Yucatan, Felipe Carrillo, a genial, red-blooded individual, full of vitality and high spirits. On that occasion, however, he had been silent and distrait, hardly uttering a word on the entire journey from Merida to Progreso. So unusual was this, that I remarked to Morley that had he been a Scot, I should have said he was " fey."

We said good-bye to him on the wharf, and we never saw him again. Less than six months later occurred the revolution in Mexico, and Merida fell into the hands of a handful of Federal troops, who joined the revolutionaries. Felipe Carrillo, with his three brothers and friends to the number of thirteen, was arrested and imprisoned.

The next act in this tragedy was a trial by court-martial, which sat for thirty-six consecutive hours in the penitentiary. No one was allowed out of that institution during its session, for fear they should spread the tidings that Felipe Carrillo —who was extraordinarily popular amongst the poorer people—and his associates were being tried for their lives, and so bring about an uprising, never a very difficult thing to accomplish in any Latin-American country.

Even the waiters from the hotel, who brought in meals to the members of the court, were kept " incommunicado " till the proceedings were finished.

The final act of the tragedy took place at 2.0 a.m. the morning immediately after the court-martial, when all were led out to the cemetery for the execution of the death sentence passed by the court. There, four at a time, they were placed standing on a bench against a wall, and shot, each batch watching the fate of the preceding one.

Amongst the victims was Felipe Carrillo's chauffeur, who had not been arrested in the first round-up, but subsequently demanded the Governor's car from the revolutionary authorities, as he asserted that it belonged to him personally. This the revolutionaries denied, and on his insisting, promptly arrested him, tried him with the others, and executed him out of hand.

On arriving in Merida we found the little city crowded with local notables who had come in for the inauguration ceremonies of the new Governor of the State, and it was with the greatest difficulty that we succeeded in getting a big, musty, cellar-like room, with tiled floor, stone walls, and only one opening—the door; damp, dark, and dismal, but better than spending the night in the street, sitting on our luggage.

Even apart from the special occasion, all the hotels in Merida are now habitually crowded, and making a splendid harvest from North Americans, who come down to take advantage of the easy divorce laws of Yucatan, where only a short residence in the State by the applicant is necessary. The fees are small, and no cause need be adduced, beyond a wish by either party to be freed from their matrimonial chains.

Immediately on landing at the wharf in Progreso, I was accosted by a tall, shabby, rather cadaverous individual, who raised his hat, and enquired politely if I had come to Yucatan for a divorce, as, if so, he was in a position to introduce me to a Merida lawyer, who would accomplish the job neatly, cheaply, and with dispatch. However, on being told that on me the chain had never been forged, he soon sheered off.

I had not been long in Merida when I was approached by a lawyer who volunteered to assist me in any matrimonial trouble, and later, in the plaza, was introduced to a gentleman who handed me an elaborate professional card, upon which was inscribed, beneath the name of his firm, the following legend: "International Lawyers, Specialists in Yucatan Divorce Law. Facilities in Mexico City, and New York City."

Divorce in Yucatan is not without its comic side, and many are the tales told by natives at the expense of the visiting "Gringo" seeking divorce in the local courts. The following, for the authenticity of which I will not vouch, was told me by a native lawyer.

A youthful Jew from the States appeared in Merida with the intention of obtaining a divorce from his wife, as he had transferred his affections to a moving-picture actress, who had promised to marry him as soon as the necessary proceedings were put through. Neither of them had any money, but she was about to sign a contract for a fresh engagement which would bring in a considerable sum, and promised to wire him, from this, sufficient for all expenses, a week after his arrival.

He set out for Merida with only a few dollars in his pocket after paying the steamer fare, and, arriving at his destination, put up at a cheap boarding-house to await the arrival of funds. But these failed to materialise, as his temperamental fiancée had had trouble with the manager with whom she was signing her contract.

Nothing daunted, he appealed for help to the extensive divorce colony in the city, as a navigator in the same treacherous sea as themselves, but in dire need of fuel for the engine, if he were to keep off the rocks.

They very generously responded to the appeal of their fellow-sufferer, sent round the hat, and collected a substantial sum, which was handed over to the little Jew.

In the meantime, however, the latter had joined the Socialists' League of Yucatan, which practically runs the State, and every activity, civil and political, within it, and through their instrumentality succeeded in obtaining a divorce for practically nothing. His future wife, having made it up with the manager, also wired him a considerable remittance.

Finding himself now in the comfortable position of having obtained the divorce, and possessing far more money than on his arrival, he promptly forgot his hotel bill in Merida, took the first boat available in Progreso for the U.S.A., just beating the hotel people (who had sent a messenger after him) by a few hours, returned to the States a free man, and a capitalist in a small way, and married his inamorata.

The moral of which tale, if moral there be, is, I suppose, "You can't beat a Jew."

To the Indian, the divorce crowd, men and women, are in dress and deportment a revelation, but the Maya, downtrodden and exploited though he be, is not without a saving sense of humour.

There exists in Merida a tiny plaza, known as the Parque Hidalgo, bounded on one side by the Grand Hotel, and on the other by the ancient church of the Third Order. This is a favourite lounging-place for ancient men beyond work, who like to come there, sit under the trees, gossip, smoke cheap cigarettes, and criticise the passers-by. To them appeared one day a party of male and female divorce-seekers, the men in plus fours, the women in skirts above their knees (both of which modes are usually confined exclusively to children in Yucatan). They were crossing the plaza on their way to view the church, when one of the old loafers, looking up, remarked to the bystanders, "All going to their first communion, I suppose."

We dined at the best and largest hotel in Merida, and found there a considerable concourse of pretty ladies on divorce proceedings bent. Some of them were accompanied by their prospective partners, whom they had already selected for a fresh matrimonial venture, and all were extraordinarily gay and friendly, but hardly of the type a prudent male would select for even the week-end excursion into matrimony now becoming so fashionable.

To these poor pilgrims from the U.S.A., suffering under the restrictions imposed by Messrs. Mann and Volstead, Yucatan must indeed appear a little earthly paradise.

The divorce contingent has proved a perfect godsend to the army of small boys who sell lottery tickets, shoeshines, matches, and magazines, and render eating at any of the hotels a misery, for they swarm like flies, and will not be driven away. They are lavishly patronised by the divorce people, who are naturally hard up for a little extra excitement, and invest largely in the State lottery.

One little chap, who had learnt to make a noise like an amorous cock turkey, was especially in demand, and his price went up, as his art became more popular, to ten centavos a performance.

Dozens of these same boys, with shoe-blacking outfits, invade the plaza, where during their leisure moments, which occupy fully nine-tenths of the day, they play a kind of marbles game with the discarded round tin covers of beer and mineral-water bottles. These objects slide, like stones on ice, along the smooth polished concrete surface of the plaza, and they have developed a most uncanny skill at the game, which they play for centavos, shooting the stoppers from the upper surface of the index finger with a flick of the thumb, and hitting another stopper at a distance of 20 or 30 ft. almost without fail.

The males of the divorce contingent from the U.S.A. are not exactly members of the New York 400, for I noticed that the principal hotel has had to increase the number and size of the cuspidors, so as to render it almost impossible to reach any exposed portion of lobby, stairway or patio without hitting a spittoon; and at the same time to put up an enormous notice on the reading-room table, where ladies usually scan the papers, "*A los Pasajeros del Hotel y Visitantes. Sirvase no apoyar ni poner los pies sobre la mesa.*" ("To Passengers and Visitors to the Hotel. Please do not put your feet on the table.")

We left on the 5.30 train next morning for Dzitas, which necessitated rising at 4 a.m. and going out in search of a "panaderia" where we could get some coffee and rolls; after a good deal of scouting we found one, a vault-like, depressing place, with a strong atmosphere of the "morning after the night before" about it.

Two mozos, still in their sandals and huge high-crowned hats, were sleeping uncomfortably, tilted against the wall in wooden chairs, obviously recovering from the previous night's debauch.

The floor was inches deep in dirt, used matches, cigarette

ends, and scraps of paper, and a couple of mangy, half-starved dogs were ranging uneasily about, equally ready to avoid a kick, or snap at any scrap of food offered them. The coffee, however, was excellent, and the *pan dulce*, or sweet bread, beloved of all Spanish-Americans, above criticism.

Dzitas was reached about 11 a.m., and here we alighted to await the arrival of a motor-car from the Carnegie Institution Chichen-Itza project.

Dzitas is a good-sized town, the population of which is almost exclusively Indian. It is in a transitional stage between old Spanish Colonialism and modern Socialism, and naturally presents many curious contrasts.

Streams of children and women may be seen every afternoon carrying their little calabashes of softened maize to the mill to be ground into *nistamal*, from which the corn cake for the evening meal is manufactured; but the mill is run by a modern gasoline engine, and the coppers for the grinding collected by an ultra-modern and business-like young lady, whose slogan is "No money, no *nistamal*."

Some of the women go about in the costume of their ancestors—*huipil* (or loose, beautifully embroidered cotton garment reaching below the knees), *pik* (or short cotton skirt), and bare feet, but these are becoming rarer every day, being superseded by the near-silk stockings, high-heeled shoes, short skirt, and sleeveless blouse of civilisation. A great pity, as all who know the Maya Indians well will admit, for whereas many modern young women have every excuse for camouflaging their figures, feet and complexions, the Maya girls, with their small, exquisitely shaped extremities, fine, straight, well-developed bodies, and clear olive complexions, have none.

Amongst the younger girls I have even seen a shingle, and moreover a shingle accompanied by bare feet, as if the wearer, determined to be fashionable at least at one extremity, had chosen that best within her means.

One sees a man in modern clothes, driving the old Yucatan

cart, drawn by three asses, harnessed side by side with hempen rope, while the next minute a Ford car passes, the chauffeur clad in sandals and the striped, apron-like vestment corresponding to the ancient *maxtli*, or loin-cloth.

The fine old Spanish Colonial church still stands, but, as it is rarely used for religious purposes under the advanced Socialist Government of Yucatan, it is rapidly falling into decay, while next door to it has been constructed a concrete and stucco plaza laid out with mathematical precision, and, new and meretricious as it now is, hideous to behold, whatever it may be in a hundred years' time, when mellowed and softened by age.

There are dozens of towns throughout Yucatan where the old lamps of the Spanish regime are being exchanged for the new of Socialism, where the plait is giving place to the shingle, the kindly smile of sympathy, which every Indian girl gave anyone who met her glance, for the glad eye of sex attraction, the cheerless negation of a barren materialism for the warm glow and helpful faith of revealed religion, and the respect for those in higher social position for an aggressive insistence on the fundamental equality of all men.

These changes are inevitable, and are progressing with extraordinary rapidity day by day. They are hailed as milestones along the road to the millennium, both by the people themselves and by their leaders, but those who know the Maya temperament best cannot but speculate sometimes as to whether they are really likely to promote the welfare of the people, and provide them with a freer, fuller, happier life, both physically and mentally, than they enjoyed under the old regime. I wonder.

Leaving Dzitas in the Carnegie motor, we started on our 20-kilometre journey to Chichen-Itza, "The Sacred City of the Plumed Serpent," at once the Mecca and the New York of the Maya New Empire, which, founded towards the end of the sixth century A.D., flourished till the middle of the fifteenth, and contained at one time a population of probably well over a quarter of a million souls.

We passed on the road the little Indian village of Pistè, a mere aggregation of tiny palm-thatched huts around a vast plaza covered with scrub and great loose boulders.

The old Spanish church, dating from about the early eighteenth, or late seventeenth, century, is rather remarkable, as many of the sculptured stones from the ruins were incorporated in the walls by the original builders, and the threshold in front of the main entrance is covered by a great flat stone, representing the sacrifice by a Toltec warrior to his god—a curious symbol for a Christian worshipper to step over every time he went to church!

On the white stucco wall on one side of the entrance, some artist had depicted in charcoal, crudely but forcefully, and not without a certain artistic merit, the figure of a nude woman, and beside it an excessively obscene and disgusting picture. The fact that these had been left on the walls undisturbed is a silent commentary on the moral and religious condition of the modern Indian.

I found here in the little Campo Santo, a number of beautifully typical examples of the Maya brachycephalic skull. They had been dug out from time to time to make room for the newly arrived dead, as to the river of mortality there is no end, while the receptacle at its disposal was limited. Many of them, though completely denuded of all the soft tissues, had the hair still adherent to the skull, like a sort of natural, black wig, which, over the death's head, produced a somewhat grotesque appearance. Most of the skulls were those of males, but a few were of women, amongst which was one with the thinnest, egg-shell calivarium I have ever seen, the owner of which during life must always have been hovering on the brink of death, for the slightest blow, fall or jar must inevitably have caused a fracture either of the base of the skull or the calivarium. The facial bones of this skull were also extraordinarily thin and delicate, though of normal size. The lady's hair, long and fine, had a distinctly coppery tinge running through it, from which I concluded she was not of pure Maya descent.

The Indian who accompanied me had known several of the original owners of the skulls during life, and gave brief accounts of their careers, simple and uninteresting enough, a life devoted mostly to keeping the wolf from the door, an occasional debauch, and death in what we consider early middle age.

But the lady's skull, with its delicate features, fine teeth, and beautiful hair, intrigued me, and I could not but wonder what manner of woman she had been, and how stranded in this remote backwater of civilisation.

Two kilometres after leaving Pistè we came to the commencement of the ruins, the great ball court, built during the Toltec occupation of the city. Here was inscribed upon a stucco-faced stone, which may with luck last twenty years, the following legend : " *Siendo Gobernador del Estado El C. Felipe Carrillo Puerto se inaugura esta carretera, Dzitas—Chichen-Itza. La liga albaniles de Yuc: tributa su admiracion a las artifices Mayas por la obra grandiosa de sus monumentos, July* 14, 1923." (" Felipe Carrillo Puerto opened this road from Dzitas to Chichen-Itza. The Masons' Union of Yucatan accords their admiration to the Maya artificers for the magnificent work of their monuments, July 14, 1923.")

Poor Felipe Carrillo has, as already related, joined the immortals, and I cannot help wondering what the spirits of the ancient Maya masons think of this somewhat patronising appreciation accorded them by the modern Trade Union of their art upon a monument which was already beginning to crumble !

The Carnegie Institution has undertaken a very extensive programme of excavation and restoration at the ruins, which it is proposed to continue over a period of twenty years, under a concession from the Mexican Government. This project is under the directorate of Dr. Sylvanus G. Morley, assisted by a large staff of experts in ceramics, mural painting, architecture, Maya archæology, and ethnology.

Eighty to a hundred men, mostly Indians, are engaged

in the actual work of excavation, and, under the able supervision of Mr. Earl Morris, some extraordinarily good work has been done in restoring the buried temples to their original condition.

Dr. Morley is one of the best-known international archæologists, and the greatest living authority on the Maya, but the control and management of a gang of workmen and large technical staff, including French, English, German, American, Filipino, Maya, Spanish, Mestizo, Irish and Chinese, some of them possessed in a high degree of the artistic temperament, is no light undertaking for one man, and though he has not " bitten off more than he can chew," he has undoubtedly tackled a mouthful likely to cause very unpleasant buccal distension.

By far the most spectacular accomplishment up to the present is the clearing and partial restoration of the *Guerreros*, or " Temple of the Warriors." When I visited Chichen-Itza in 1923 this was represented by a vast conical mound of rubbish, about 600 ft. in circumference and 50 ft. high, from which projected, at irregular intervals, great masses of cut stone. The western façade of this had now been completely cleared and restored, and exhibited perhaps the most striking building extant in the whole Maya area.

The temple stood upon a great truncated pyramid, faced with cut stone, measuring 136 ft. square at the base. In front was an imposing colonnade, which was roofed in with Maya arches, supported on square columns, each beautifully sculptured in low relief with figures of Toltec warriors, gorgeously painted in red, yellow, blue, green, and black.

The summit of the pyramid was approached by a stone stairway, also covered in by Maya arches, supported on similar columns, leading to a great chamber, 52 ft. by 63 ft., divided into two by a partition wall running north and south.

The roof of this chamber consisted of a series of Maya arches, supported by square stone columns, upon all four

Bird from "Temple of the Warriors"

Main Entrance to the Temple, Chichen-Itza [p. 80

sides of each of which were sculptured Toltec warriors of heroic size, gorgeously painted.

Against the east wall of the back chamber stood a flat stone altar, measuring 15 ft. by 9 ft., borne on the heads of thirteen Atlantean figures cut in stone, their vestments and ornaments being gaily painted in the same colours as were used upon the columns. These figures were almost undoubtedly portraits, possibly of kings or high priests of Chichen-Itza.

The faces were very finely sculptured, and several of them showed great character. Some were thin and ascetic, the faces of great lawyers or ecclesiastics, others were full-fed, and obviously represented strong-jawed, determined individuals; others again were mean and cunning, while one at least was merely weak. In one were seen the crooked mouth and sagging cheek indicating facial paralysis, and the figure at the south-east corner was christened by us "the Irishman," on account of his wide, thin-lipped mouth, prognathous lower jaw, and long upper lip.

Along the whole of the east and west walls, and along the north wall by the sides of the altar, ran a broad, stone bench, covered with painted stucco; the walls of the chamber itself were built of nicely cut stone, also stucco-covered, and painted in various devices.

The outer chamber was very like the inner, except that it had no altar and no benches. The floors of both were of cement, painted red. Both these chambers must have been exceedingly dark, as with the exception of the great main entrance on the west side, leading to the platform at the summit of the mound, neither had any openings whatever for the admission of light and air. While it may have been possible to see somewhat obscurely in the outer chamber, the inner, whose only communication with the outside consisted of a door, 7 ft. wide, in the dividing wall, must have been almost pitch-dark even on the sunniest day.

The front wall of the temple was decorated on each side of the main doorway by the sculptured heads, of heroic

size, of the Long-Nosed god, and of a great bird, from whose open beak projected a human head.

In the centre of this wall was the only entrance to the temple, divided into three by two vast serpent-columns, the great heads, with protruding tongues, and red, open mouths, extending along the platform in front of the temple, the bodies forming the columns, upon the summits of which were placed the immense rattles, bent on themselves at right angles.

In the centre of the platform, in front of the main entrance, stood the stone figure of a Chacmool—that curious Toltec deity, always depicted lying on his back, knees drawn up, arms pressed to the sides, and uplifted head looking over one shoulder. This god always seems to be associated with sacrificial offerings to other gods, usually Tlaloc, the god of rain, or Cuculcan, the plumed serpent. His belly is usually flattened, probably to support an incensario, or actually hollowed out, to form a receptacle in which incense might be burnt. He is never accorded a temple of his own, but occupied a prominent place on the platform of the temple of one of the other Toltec gods.

On each side of the main stairway the façade was divided by three sloping walls into three terraces. The walls were faced with finely cut stone, and upon the central one, on each side, was sculptured an elaborate frieze, showing tigers, crouching, armed warriors, and huge birds of prey.

The use to which this vast building was originally put is somewhat doubtful; usually the presence of the Long-Nosed god and the Chacmool would be sufficient, without any further evidence, to class it as a temple, but the great flat, table-like structure, supported by Atlantean figures, obviously representing prominent individuals of the day, together with the stone benches, would almost lead one to believe that it had been a royal reception chamber, or court of justice, the flat table forming a sort of dais, supporting the throne, the broad, stone benches accommodating the seats of the priests and nobles on either side of their ruler.

Atlantean Figure from "Temple of the Warriors"

Columns from the Temple, Chichen-Itza

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Two small temples in what is known as Old Chichen-Itza, lying about a mile and a half to the south of the main city, had recently been uncovered from within the mounds of rubbish which had hidden them for centuries.

In one of these were discovered two well-sculptured stone lintels, each bearing the date, 1 Ahau, the end of Tun 13, which with any chronological probability could fall only in the year A.D. 1155 of our era, and this date also fitted in very well with historical facts, as at this time the city was flourishing under purely Maya dominion, the Toltec conquerors not appearing on the scene till nearly half a century later.

The curious thing about these lintels was that they bore the same date, and showed precisely the same technique in sculpture and ornamentation as another lintel found in a small temple at a distance of about four miles from Chichen-Itza, and the evidence was strongly in favour of all three lintels having been taken from the ruins of an older temple, and re-used in their present situations.

The second new temple was a good deal ruined, but had still a small piece of one wall standing, which was very beautifully ornamented with pilasters and diamonds, in the style of the Monjas, or house of the nuns, with which it was probably contemporaneous.

A small building in Old Chichen-Itza, known as the Temple of the Initial Series, had been as completely restored as the remains of the original material used in its construction would permit. This temple, though insignificant in size, was one of the most interesting structures left by the aboriginal inhabitants of Middle America, first, because it contained the only object, consisting of a stone lintel, upon which was sculptured the Initial Series date 10.2.0.0.0, or A.D. 609, left from the first Maya occupation of Chichen-Itza, and second, because it showed in its construction the influence of at least four periods of occupation of the city.

(1) The earliest Maya, represented by the lintel, which

is the only stone now in existence at Chichen-Itza known to belong to this period.

(2) A Toltec period, represented by re-used sculptured stones, and especially by the two Atlantean figures which support the Maya lintel.

(3) A later Toltec period, represented by the temple as it now stands.

(4) A much later period, possibly post-Columbian, represented by a number of crude pottery vases found buried in the debris at the side of the temple.

CHAPTER VI

Set out for Loltun, " The Cave of Flowers "—An underworld lies beneath the peninsula of Yucatan—The village of Oxcutzcab—The last descendant of an aboriginal royal American house, tracing her descent back for over a thousand years—An uncomfortable journey—Locusts, a plague in Yucatan—The misery of the mozo—Tiger soup—Dated sculpture of warrior on wall outside the cave of Loltun—Vast stalactite-hung chambers and corridors—Reason for natives not entering remoter parts of the cave—One of the chambers floored with layers of potsherds, over which earth had been washed in—Cave said to have been used by the ancient inhabitants as a burial-place for priests and rulers, whose spirits now haunt it—A curious subterranean fauna—We continue our exploration of the cave—Origin of the name Loltun—Narrow escape from falling over an underground precipice—Petroglyphs in the cave—An exquisite subterranean landscape—Innumerable stone water-troughs—The return of the great dead upon *Hanal Pishan*, or All Souls' Night—The cave demands intensive exploration—Remains of pre-Maya man may be found there, or even some of the painted manuscripts of the ancient Maya still preserved.

RETURNING to Merida on the 9th, I set out by the usual 5.30 a.m. train the following morning for Oxcutzcab, a large Indian village about fifty miles to the east of the capital, and the nearest point on the railroad to the cave of Loltun, or " Stone Flowers," as the Maya words mean.

To understand the construction of this vast cavern it is necessary to know something of the geological formation of Yucatan. The whole of the northern part of the peninsula, which is almost perfectly flat, forms one immense table of limestone, supported on innumerable stone legs of all lengths and sizes, to fit the irregular contour of the surface upon which they rest.

This immense extent of subterranean country is, at present, an unexplored region to the dwellers on the table-top, as it can only be reached through holes, or, as they

are really termed, "mouths" in the crust, leading either to vast caverns connected by endless intricate passages, tunnels, and chambers, silent as the grave, but for the occasional fall of a drop of water from the roof, and black with a darkness almost palpable, or to great bodies of water, known as *cenotes*, some of which are over two hundred feet deep.

The latter are found throughout the peninsula, and, as they rise and fall in level together, it would seem that they communicate with each other by means of a vast system of subterranean channels and lagoons.

At the mouth of the Riolagartos, on the northern coast of Yucatan, is a very curious whirlpool, or hole in the sea-bed, known by its Maya name of Hol-Tam. During the dry season it forms a small whirlpool, into which trees and branches disappear and are seen no more. It makes a distinct roaring noise, and is sedulously avoided by the fishermen. During the height of the rainy season, on the contrary, it persistently ejects fresh water, which sometimes spurts up with such force as to rise a foot or more above the level of the surrounding water. I have never seen this hole, but have heard of it from many people who have.

On the Chetumal bay, however, at the opposite extremity of the peninsula, I have seen and tasted fresh-water springs, which bubble up with considerable force from the sea-bed, not far from the shore, and I have heard from reliable sources of other similar springs along the coast.

It seems not improbable that the vast underground water reservoir beneath Yucatan communicates in places with the sea-bottom, and that when, during the dry season, its level is lowered it sucks in a certain amount of water from the sea, but when the rains appear the water-level is raised within the inland sea, and the water which had been taken in is again expelled, together with a good deal of the surplus water supplied by the rainfall draining into this immense receptacle, in a land where there are no rivers

to carry it off and all the water falling on the surface flows into this great subterranean sea.

The best known of these *cenotes* is the Cenote of Sacrifice at Chichen-Itza, where during the Toltec occupation of the city, extending over a period of some two and a half centuries, sacrifices were made in times of drought to Tlaloc, the god of rain, consisting of the most beautiful Maya maidens, with gold, jewels, ornaments, weapons, jade carvings, pottery, incense, etc., many of which have recently been brought to light in dredging out the mud covering the bottom of the *cenote*, from which were also recovered many skeletons of young girls, wonderfully preserved by the vegetal mud underlying the water, in which all were buried.

On reaching Oxcutzcab I was put up by the principal man of the village in a vast, barn-like, stone house, just completed, and replete with every discomfort; no sanitary accommodation existed beyond a patch of dense scrub in the backyard, evidently left over from the primeval scrub for that purpose when the original clearing for the house had been made, but, as there were ten daughters in the family, mostly grown up and unmarried, a very embarrassing contrivance for the use of a retiring bachelor.

There was a very limited water supply, and food consisting of *pan dulce*, and near coffee, so sweetened that it tasted like molasses.

The flat, high-pitched ceiling magnified every noise like a sounding-board, and as two members of the family were sick, one of whom coughed and expectorated, while the other groaned all night, sleep was not easy to obtain.

My last question before retiring was whether any mosquitoes were to be expected during the night, and whether a mosquito net were necessary. "Oh no, Señor," my host assured me. "*En Oxcutzcab no hay ni uno mosquito; en Merida si, hay, pero aqui, no.*" ("Oh no, Señor. In Oxcutzcab there is not a single mosquito; in Merida, yes, but here, no.")

With this assurance I retired without putting up my net, but not ten minutes after the light was out heard their syren song, and was soon attacked by a swarm of blood-thirsty strikers. I had to get up and erect my net with one hand, by the very inadequate light afforded by a series of matches held in the other.

My first visit, the morning after my arrival, was to the house of Doña Felipa Xiu, last survivor in the direct line of the Royal House of the Tutul Xiu.

The Xiu family tree, obtained from Bernabe Xiu, is now to be seen in the Peabody Museum of Harvard University, U.S.A. In it the descent of Felipa Xiu can be traced back to Gaspard Antonio Xiu, an interpreter under the Spanish Crown, who was a grandson of that Francisco Montejo Xiu who offered his allegiance to Francisco Montejo, the conqueror of Yucatan, in 1541, whose names he took when baptised a Christian.

This Francisco Montejo Xiu in turn traced his descent back to the Tutul Xiu, who founded both the dynasty and the city of Uxmal, some eight and a half centuries before the Spanish Conquest, so that the old lady now dwelling in this humble little adobe hut, dressed in a poor old patched, ragged *huipil* and *pik*, working hard day by day with her hands to keep herself and family with sufficient food, is really the only genuine descendant of a once great, aboriginal, American, reigning family, who can trace their descent back for a thousand years, which is more than can be done, probably, by any other individual on the American Continent, or even by the majority of the reigning, and would-be reigning, families of Europe to-day.

But she was not lacking in some of the best attributes of royalty, for she met me with a pleasant smile and a natural and unaffected dignity; woman-like, asking only one thing when she agreed to sit for her photograph—permission to tidy her hair and put on more becoming attire.

I was afraid that, instead of the national costume, she would appear in the skirt and blouse of civilisation, but not

TWO OF OUR INDIANS BY ARCHED CHAMBER, COBÁ
See page 123

FELIPA XIU, WHO TRACES DESCENT ONE THOUSAND YEARS BACK TO KINGS OF UXMAL, OXCUTZCAB
[*p.* 88

so—this scion of a fallen royal house knew more of the eternal fitness of things than I suspected, and appeared in a new *huipil* and *pik*, both beautifully embroidered in various bright colours by her own hard-worked hands.

That evening, while sitting talking to my host, an Indian mozo, in the apron and sandals of his order, came into the *sala*, and, in accordance with the democratic custom of Yucatan, was invited to take a seat.

After a little desultory conversation on the iniquities of the *municipalidad* and the lamentable gap between the promises and performances of the Socialist Government, two never-failing subjects of discussion in Yucatan, he startled me by suddenly asking, apropos of nothing in particular, if I could give him the correct correlations in Christian and Aztec chronology of the date 1 Ahau in the Maya calendar; such a question from a Maya scholar would have been startling, but from an aproned, sandalled mozo it was simply paralysing.

It turned out, however, that he was the son of Doña Felipa Xiu, and, though born with a bar sinister on his escutcheon, took an immense pride and interest in his ancient family.

He asked me if I had seen his genealogical tree at the Peabody Museum, and, on my assuring him that I had, turned eagerly to his host and remarked, "Didn't I always tell you mine was the oldest family in Yucatan?" To which that hard-bitten old peasant capitalist mumbled something about a fat pig being of more value to the possessor than kingly blood without money.

Next morning I made an early start from Oxcutzcab, mounted on a tiny native pony, and accompanied by three Indians who were reputed to be well acquainted with the cave.

The saddle was of the cowboy variety, apparently constructed for a man about 4½ ft. high, and the stirrup-leathers, being sewn together and not buckled, were immovable, so that what riding I did was done with my

knees at the level of hip-joints and feet-soles pointing backwards; moreover, as nothing would urge my mount out of a slow crawl, I did a good deal of walking, to ease the constrained position on his back.

On starting, the leading guide, Carlos Escobeda, estimated the distance as being at the outside six kilometres, but, when after an hour and a quarter's riding he announced that we had come nearly half-way, I concluded that, as is usual amongst Indians, he had no correct conception whatever of time or distance, and that the journey was really one of about five or six miles.

At this point I began to feel a very uncomfortable itching sensation about my ankles and legs, and, dismounting to investigate, found my ankles literally covered with a layer of small brown ticks, attached to the skin in rows wherever they could get a proboscis hold. The advance guard had crawled up my legs and obtained anchorage wherever the skin was thin and tender.

I have never before seen ticks in such profusion; from just brushing against the weeds by the side of the road one's trousers and socks were soon brown with them, and, did one sit down for a moment beside the bush, they attacked in regiments and battalions. Their presence in such extraordinary numbers was probably due to the great herds of lean, half-wild cattle which range the bush, and serve to propagate this curse of the dry weather throughout Central America.

The land was the poorest I had yet seen, merely an immense flat outcrop of limestone covered with great boulders, giving sustenance, where a little red earth had accumulated in its interstices and crevices, to a low scrubby bush, every plant, shrub, and liana of which was provided with thorns, spikes, prickles, poisonous leaves or juice, or other weapons, offensive and defensive, against attack. Notwithstanding its natural armament, however, great patches of this unappetising vegetation had been cleared to the bare sticks by immense swarms of locusts. We

passed through one vast swarm of greyish adults, and their purple and black young, so thick that the horse's hoofs crushed hundreds of them, though one would have thought his funereal pace might have given even the slowest insect ample time to get out of the way.

Every green leaf, no matter how tough or evil-tasting, disappeared before them, and woe to the maize or other cultivated patch they came across; after their passage it simply was not, and, *faute de mieux*, they can even tackle the tough, bitter fronds of the coconut-palm, rejected by even the omnivorous goat.

The locust problem is becoming a very serious one in Yucatan, and, unless efficient measures are shortly inaugurated to deal with it, threatens in the near future seriously to handicap all attempts at agriculture throughout the peninsula. A special Government department exists, known as the Compania contra la Langosta, whose business is to combat the plague wherever found, by destroying the swarms by fire, trenching, etc., and to limit their reproduction by spraying, but at present no great progress has been made towards wiping out the pest.

We arrived at length at a small *vivienda*, consisting of a simple Indian hut, thatched with rotten palm and leaning to one side at a perilous angle, but so flimsy that, even had it fallen on the inmates, it would not have hurt them. Once it had been plastered with adobe, which had long ago worn off, leaving the inhabitants free to the winds and rains of heaven.

The wretched single room was occupied by a man and his wife, his mother-in-law, a very ancient Maya crone, and five children, all looking anæmic and debilitated, which, considering the food and lodging they had to put up with, was not to be wondered at.

The household furniture was reduced to the *n*th degree of simplicity. Three stones to cook on, a few calabashes, a slab of stone and roller to grind corn for food, and four henequen hammocks for the family to sleep in.

Yet, ill-nourished as they looked, they were cheerful and hospitable, offering me with ingratiating smiles all they had to offer—a seat in a hammock and some hot water to make tea.

Just before our arrival the man had killed a goat, and the whole family were standing round gloatingly watching the skinning of the animal, while in a large pot—the family's most cherished possession—water was already boiling for the reception of the gory carcass.

On passing this house later, I found an infant gnawing on the lower jaw of the goat, to which some shreds of meat were still attached, and the other bones lying about, picked clean. Amongst them I also noticed part of a jaguar's skull, which showed suspicious traces of having served for food.

Finding this reminded me of an amusing incident which happened to a party of archæologists in this bush. They had shot a tiger, and, wishing to carry the skull away with them, requested the cook to boil it in order to get the flesh off. This he proceeded to do in a large iron pot. The creole labourers, coming in while the operation was taking place, asked what he was cooking in the pot, whereupon he pulled out the tiger's head and showed it them, remarking that it was making excellent soup for dinner.

The men went away in disgust, and that evening refused perfectly good canned ox-tail soup under the impression that its chief constituent was tiger's head ; but what was their astonishment, when the pot was taken over to the archæologists' camp, to see the latter drink the soup with relish ! For ever after the men were firmly convinced that American archæologists throve on tiger-soup, and their reputation for eccentricity and general cussedness was greatly enhanced.

Close to the *vivienda* we came upon an immense circular pit, caused by the caving in of the limestone crust, the walls of which rose to a height of 40 or 50 ft., except at one spot where a sort of landslide had occurred, allowing one to climb down it to the bottom of the pit.

Here we discovered a broad slit, from 6 to 12 ft. high, in the face of the rock, and, entering this, descended a slope covered with immense boulders of all sizes into a vast, dome-like chamber, from the lofty roof of which hung masses of stalactites of all sizes and shapes.

Beside the opening, on the surface of the rock, was sculptured in low relief the gigantic figure of an armed warrior, immediately above whose head was recorded the Maya date 3 Ahau, the month sign very obscure from weathering, but the numerical co-efficient, consisting of three dots, very clear. This was to all intents and purposes a stela, such as one finds erected at the various ruined cities to commemorate the end of every Katun, or twenty-year period, the only difference being that here the sculpture was on the living rock.

Passing out on the opposite side of the great ante-chamber to the cave proper, we entered an impressive corridor, with high, arched roof, supported on each side by great rows of columns, formed by stalactites reaching the floor, and reminding one forcibly of the nave of some vast cathedral built by nature.

On each side of this great passage were series of subsidiary passages, some branching out as tunnels in every direction, others opening into rooms and chambers of all sizes and shapes.

The men were unwilling to enter and explore any of these secondary passages, the reason ascribed being that in their further recesses they were full of *mal aire*, otherwise poisonous gas, or carbon dioxide, but, on pressing the matter, I soon found that what they really dreaded was not the *mal aire*, but the *pishan*, or spirits of the ancient inhabitants, for there exists amongst them a tradition to the effect that the remoter fastnesses of these immense caverns were used in former times by the Maya as a burial-place for their kings, nobles, and priests, and their spirits still rule in this under-world, and still perform the functions and hold the honours which were theirs in the flesh.

Furthermore, they bitterly resent encroachment or trespass on their underground kingdom by any mortal, and show their resentment by leading him astray in the maze-like intricacies and interminable passages and chambers of the cave, from which he probably never again emerges, or causing him to fall into a pot-hole or down one of the many precipices and vanish for ever from mortal eyes.

In exploring a small chapel-like side-chamber, with lofty stalactite-covered roof and pillared entry, which debouched from the main passage, I found its floor covered with a thin layer of rather tough, greasy, alluvial earth, such as is found carpeting many portions of the cave. In this earthy covering the constant dripping water from the roof had worn a great number of small round holes, or pits, reminding one of the face of a sufferer who has recovered from a severe attack of smallpox.

At the bottom of all these holes potsherds were visible, and, on scraping away the earth, it became evident that the underlying layer was composed exclusively of broken pottery of all kinds, chiefly, however, of the common crude domestic type and the polished red ware so universal throughout the Maya area.

Unfortunately the time at our disposal, and the number of men available, did not admit of a systematic exploration of this chamber, or indeed of any part of the cavern, but I certainly hope to return at a later date and carry out a thorough exploration on the floor of this and other parts of the cave.

It is possible that there may be a slight foundation of truth in the Maya legend that this cave was used as a mausoleum for the most distinguished persons of the Maya New Empire, and that here we may have a vast aggregation of funerary pottery, but I am inclined to think that the potsherds were water-borne—that they were carried down by a flood, which swept along the main passage centuries ago, and found a resting-place in this quiet backwater,

where they were gradually covered by a layer of water-borne silt, which on drying became pitted by the dripping water from the roof, again exposing the potsherds, if not to the light of day, at least to the electric torch of the explorer.

The difficulty about this theory is that it does not explain the presence of the clay vessels in the cave, in the first instance, unless they had been placed there as funerary offerings with the dead.

Along the floor of the passage, which was covered, as before stated, with a greasy earth layer, were many runways and channels, apparently cut out by the action of water, and within some of them we found collections of the *chacluum* or fine red earth of Yucatan, which constitutes the most fertile soil of the country. It is difficult to conceive how this red, alluvial soil can have found its way into the cave, unless water-borne from the outside.

The most remarkable formation upon this extraordinary floor, however, was, I think, a circular network, surrounding a large rock, of diamond-shaped spaces, the reticular strands of calcareous matter composing which were twisted in such a manner as to give the appearance of rope. Each of the spaces was filled with spherical balls of limestone, varying in size from a small pea to a good-sized marble.

How this extraordinary structure, which looked like some gigantic toy or puzzle, came to be made by nature, I am unable to offer the vaguest suggestion.

In one of the crevices I caught a couple of tiny white spiders, which would seem to indicate the presence of flies, and on the floor were numerous little crater-like pits of ant-bears, which the architects would hardly have taken the trouble to excavate unless they were assured of the presence of the ants, for whose capture they were intended, but of neither ants nor flies did we see a trace, and indeed it is difficult to imagine how either of these sun-loving insects could manage to exist in the Egyptian darkness of this cave, where there would appear to be no food to attract

them, unless indeed they were sent specially to provide, as it were, a commissariat on the hoof, for the spiders and ant-bears, who must otherwise have perished.

Bats of all sizes and sorts flourished in the cave, and we found large collections of small snail-shells, which the Indians said had been brought in by them to serve as food, though, as all the shells were unbroken, it is difficult to understand how they succeeded in extracting the snail, unless by suction, of which it would require a very powerful application at his front door to compel the inmate to evacuate.

In the *cenotes* and great collection of water found in this under-world of Yucatan, at least two species of small fish not found on the surface exist, and indeed the whole sub-terraneous system would, in my opinion, prove almost as interesting to the biologist as to the archæologist, and would equally repay a thorough investigation by both.

The great pillared passage debouched at last into a vast circular chamber, from which the roof had fallen at some remote period, leaving a finely domed, clear, limestone ceiling, and a floor covered with gigantic boulders, climbing over and around which, with no little difficulty, we found ourselves at the mouth of another tunnel-like passage, smaller than the first, from the roof of which depended innumerable nodule-covered stalactites, which somewhat resembled a bouquet of foxgloves, and probably gave the cave its romantic Maya name of Loltun, or Stone Flowers.

At the end of this passage we found ourselves on the brink of a great crevasse, or fault in the cave-floor, and it seemed as if we could go no farther in this direction ; one of the Indians, however, soon found a narrow ledge of rock running by the side of the crevasse, and along this we started to crawl.

It proved an extremely unpleasant and nerve-trying experience, as the ledge was only about 2½ ft. wide, sloped downwards towards the edge of the precipice on one side, and on the other was bounded by the wall of the chamber,

which sloped also towards the precipice, rendering it impossible to hug it as closely as one would have wished.

To add to our troubles, the ledge was covered with a wet, slimy earth, which offered no foothold worth mentioning to ordinary leather shoes. I managed to get along all right at first in the proud position assumed by *Homo Sapiens* alone, but on reaching an abrupt elbow, where the ledge sloped down more sharply than ever, and the cave wall tended more acutely inwards, took incontinently to my hands and toes, and ignominiously crawled ; and lucky it was for me that I did so, as just at the angle of the elbow my feet suddenly slipped from under me, the electric torch was jerked from my hand, and fell with a reverberating crash on the rocks below, where for one agonising heart-beat I feared I was about to follow it.

I had just time in a flash to visualise myself a broken body, full of fractured bones and agony, days from civilisation and relief, and to wonder whether a rapid euthanasia would not be preferable, when I obtained a good grip on the slippery ledge with belly, arms, and legs, and saved myself just in time from rolling over into the pit.

The position, however, was still a somewhat precarious one, as the leading Indian had gone ahead with the gasoline lamp to look for one of those openings in the roof of the cave which communicate with the upper world, and through which the sunlight enters ; the torch was gone beyond recovery—indeed we never saw it again ; and the two Indians behind me were terrified to move in any direction without a light for fear of falling over the edge, while I was afraid even to wriggle, in case of losing my hold on Mother Earth.

We all howled lustily together in chorus, till the ululations went reverberating around the dome of the great chamber, coming back as echoes from the sides of the abyss, and surely awaking the spirits of the great Maya dead, if this were their last resting-place, though to my mind it was

too suggestive of the ante-chamber to Hell for a comfortable place of post-mortem residence.

At last, after what seemed hours, but was in reality only a few minutes, we saw, far away around a curve in the passage in front of us, a dim reflection of light from the roof. This gradually increased in brilliance, till finally the leading Indian appeared with the gasoline lantern. It was not till then that I thoroughly realised how lucky I had been, for I was stuck, like a limpet on a rock, to the very edge of a precipice, and it required very delicate manipulation on my own part, assisted by the Indian, to reach a comparatively safe part of the ledge.

The natives, clad in raw-hide moccasins, appear to possess almost prehensile feet, like a fly, and made but little of the passage ; indeed I imagine this material, fitting closely as it does to the foot, almost as intimately as a second skin, affords a better hold in slippery places than even a rubber sole.

After passing the angle of the elbow, I was rejoiced to see the end of the ledge, which opened into a second broad tunnel, roofed with stalactites, and, passing along this, we arrived in another immense domed chamber; through a hole in the roof the welcome sunlight streamed in. This was really the main entrance to the cave, and is known as the Boca de Loltun, or Loltun Mouth.

From the floor of this last chamber an immense mass of rocks and debris, evidently the result of the cave-in which originally formed the opening, is piled in a great conical heap ; upon the summit of this the Indians have fixed a ladder of saplings, the cross-sticks lashed with liana, affording a sort of precarious Jacob's ladder half-way up the side of the cave to a small, out-jutting ledge in the rock ; from here a twisting stairway hewn in the rock—probably by the ancient inhabitants—leads to the opening on to the surface.

In this chamber we saw a number of crude petroglyphs, some obviously intended to represent human faces. They

were done in the ancient Maya style, and, judging by this, and their weathered appearance, were the work of pre-Columbian inhabitants.

There were two more Loltun entrances, or *bocas*, to the cave, but they consisted merely of skylights, openings in the roofs of caverns, affording no means of exit or entrance.

One of these was double, suggesting a pair of spectacles, and down one of the openings an enormous liana had found its way and taken root in a heap of rubbish at the bottom, resulting from the cave-in, and flourished and grown to an immense thickness.

Down the other opening hung a veil of flowering creepers, the exquisite blossoms and bright green leaves of which were brilliantly illuminated by the rays of sunlight falling through the opening, while drops of water, dripping at regular intervals from the roof, were irradiated in their passage from the same source, and formed a foreground of iridescent diamond rain, which from century to century never ceases.

Against the black background of the cave-wall this charming little picture suggested a peep into fairyland, though it perhaps reminded one more of the transformation scene of a very spectacular pantomime.

The mouth by which we entered the cave is known as Hunacab, and is about a thousand yards distant, the Indians say, from the opening by which we emerged, but I do not think that, as the crow flies, it can be so far, for the passages turn and twist in the most confusing manner.

All through the cave between the openings we found oblong stone water-troughs, nearly always beneath places where water dripped from the roof, and full of beautifully clean, cold water, which must, however, be highly charged with lime, as all of them were covered by a calcareous crust, in some cases so thick as completely to obscure the original contours of the containers.

Needless to say, amongst the few poor Indians who live in its neighbourhood, legends hang thick about the cave.

On Hanal Pishan, or All Souls' Night, which of all Christian traditions seems to be the one most universally accepted by the Indians and grafted on to their ancient beliefs, dancing lights are to be seen in the remoter galleries of the cave, a constant murmur of people talking together may be heard, and dim, shadowy figures are seen flitting about in the obscure recesses of the interior.

As the side-galleries are practically unknown and unexplored, and branch out into a bewildering maze of inter-communicating galleries, tunnels, and chambers, it is naturally about them that traditions of the marvellous and the supernatural cling most persistently in the Indian mind, and they are by far the most interesting part of this vast subterranean world, which needs a thorough exploration by a competent scientific expedition, geologically, biologically, and archæologically.

Geologically the limestone formation of Yucatan is comparatively recent, and contains no fossils of marine fauna or flora not found to-day in the surrounding seas, for it has indeed only been thrust up from the sea-bottom in, geologically speaking, recent times, but the formation of this great subterranean system, its stratifications, and the evidence of its having been submerged are all of extreme interest.

To the archæologist, however, the cave is naturally of even greater interest, as here, if anywhere, will be found traces of man, if man existed in Yucatan, before the coming of the Maya in the early centuries of the Christian era.

Some little excavation has already been done beneath the earth covering the floor of the cave in the immediate vicinity of the Loltun openings, where traces both of burial and occupation by the Maya during the New Empire are to be found in great abundance ; but the petroglyphs, both at the Hunacab and Loltun mouths, afford us this information at the first glance, and I am convinced that it is in the remoter fastnesses of the cave, as yet entirely unexplored, that discoveries may be made, not improbably of a pre-Maya race, or possibly even of palæolithic man, such as have

been made in France, Spain, and Palestine, for if traces exist anywhere on the American Continent, surely such a vast natural cavern as this would be the place to look for them, admirably adapted as it is either as a mausoleum or dwelling-place.

Moreover, here, if anywhere, might be discovered the *anhaltes*, or ancient books of the Maya, dealing with their history, calendar system, and religion, all but three of which were burnt by Bishop Landa soon after the Conquest as works of the devil.

We know from contemporary historians that these books, made of the fibre of the Agave Americana, or American aloe, were buried with the priests, but up to the present not one has ever been discovered, probably owing to their complete disintegration in this warm, damp climate. Yet it is the dream of every Maya student's life to find one of these historical codices, which should not only supply a history of this wonderful people for probably two thousand years before the arrival of Europeans on the American Continent, but, by affording a key to the unknown glyphs, act as a Rosetta stone to the monoliths, and enable us to read the records of the individual cities, their rise and fall, their conquests and defeats, pestilence, floods, and other disasters, the names of their principal men, their art development, and perhaps the social life of their rulers and priests.

I visited the cave expecting that, with a handful of men, a modest equipment, and a few days at my disposal, I could see all there was to be seen, but the more I saw the more I realised the impossibility of one man going over the ground, even with unlimited labour and time at his disposal.

It requires three experts in the subjects already indicated, a complete cave exploration outfit, and a number of men, and unlimited time to carry out an investigation such as is merited by one of the largest, if not actually the largest, known cavity beneath the surface of the earth.

There are so many problems of absorbing interest awaiting

solution in Yucatan, that the only wonder is it has not attracted more visitors from the U.S.A. and Europe ; but, with the exception of the divorce contingent, Americans are little known, and European visitors could almost be counted on the fingers of one hand.

Yet can Egypt offer anything more thrilling than the possibility of finding a royal burial-place, stored with the treasures of centuries, a codex which will give the key to the history of the only aboriginal civilisation in America worthy of the name, or the ruins of an ancient city never before viewed by European eyes or trodden by European feet ? And all these things and more are possible to the explorer in the remote parts of the south and east of Yucatan, which, compared to Mesopotamia and Upper Egypt, are just outside the back door of the U.S.A.

CHAPTER VII

The inertia of Valladolid—Learn of the ruins of Cobā from recent translation of ancient Maya manuscript—The *volan coche* and *carreta*, the most primitive vehicles now left on earth—A modern charioteer, driving five miles without reins—A horrible journey—A curious shrine—An uncomfortable night—The village of Chemax—Curious votive offerings—We start for Cobā—San Juan Chen, and its *cenote*—A gigantic causeway—Used as a processional road between the two great cities of Yucatan—We find three stones with glyphs inscribed upon them, one possibly recording a date, along the road—The wild turkey—We arrive at Cobā—Camp beside a lagoon—The site has never before been visited by Europeans—A vast temple mound, possibly the highest in Yucatan—Discovery of three stelæ, so weathered that the inscriptions upon them were undecipherable—Altars, upon which were the remains of candles, left by modern Indian hunters as votive offerings, found beside the stelæ.

AFTER a few days' rest at Chichen-Itza, where more than all the usual comforts of home are provided by the Carnegie Institution, I left Dzitas for Valladolid, the former capital of Yucatan, but now a sleepy agricultural provincial town, gradually slipping towards a painless extinction along the *mañana* route.

No one ever hurries here, and no one worries about anything as long as they possess enough to eat, plenty to drink, and a cotton shirt and trousers. And though they may not even have got all of these, well, why worry anyhow?

From Chichen-Itza we had engaged what is known as a *volan coche* to carry ourselves and our luggage, which consisted mostly of photographic outfit, hammocks, and food, from Valladolid to Chemax, the nearest Indian village to the ruins of Cobā, reported to be situated somewhere between Valladolid and the ruined city of Tuluum, on the east coast of Yucatan.

Within the last few months there has been done into Spanish by Dr. Solis Alcala the "U Kali Katunob" of Chumayel, an ancient, aboriginal, Maya historic document, never before translated from the original. In it occurs the passage, "*Cuando empezo la miseria en Chichen-Itza, se fue al Oriente y llegó al casa del Sacerdote Cobā,*" meaning, "When the plague attacked the people of Chichen-Itza, they migrated to the east and arrived at the settlement of the priest Cobā." This appears to have been their earliest migration, and to have occurred some time before the middle of the seventh century.

The American explorer, Stephens, in 1842, heard from an Indian of ruins existing at a place named Cobā, to the east of Chemax, where he had seen painted figures upon the walls of the temple.

So far as is known, these were the only two references to this deserted city, which had never before been visited by Europeans. Having ascertained from Indians that ruins did actually exist on a lagoon in this situation, we determined to visit them at all costs.

We found the owner of the *volan coche* awaiting us on our arrival in Valladolid, but no *volan*. He informed us that *volans* were not allowed within the *barrios*, or limits, of the town, so we would be compelled to hire a disreputable old Ford truck, which awaited us at the station, and took ourselves and baggage to the *barrios*.

Before this, however, as we were making for the little hotel of the place to get some lunch, he steered us off to a friend of his own, where he said we should get much better food. We did not. On joining him at the *volan*, he asked us how much we had paid, and, adding insult to injury, told us we had been robbed. To this I replied that we had quite expected it, as it had become a but too familiar experience. This, as it turned out, was an injudicious remark on my part, and I could see him pondering it carefully. The brain-wave resulted in the announcement that the *volan* was incapable of carrying both ourselves and our

baggage, and that he had provided a *carreta*, or cart, and five more mules to draw it, while we occupied the *volan*.

I did not credit either statement, as the *volan* was perfectly capable of carrying twice the burden, while the *carreta*, which we were told was not yet ready, was obviously an after-thought; but I merely asked "How much?" as we were completely at his mercy, and argument was, I knew, simply wasting breath and temper.

After half an hour's wait the *carreta* turned up, with our little pinch of baggage, covered with a tarpaulin, looking like a pea on a threshing-floor upon its vast expanse.

This *carreta* was an extraordinary conveyance, a survival most probably of Spanish Colonial days. It was broad, and tremendously strong. Standing on two very high wheels, it was drawn by five mules—three behind, two in front—and driven by a wild-looking Indian, without any reins, his only control of the animals being exercised by means of an immensely long henequen whip.

He stood up to drive, like a Roman charioteer, and to see him come hurtling down a stony hill, bumping over great boulders of limestone, as fast as the mules could gallop, guiding them with the whip-lash alone, was a sight not to be forgotten. He shouted at them, "*Whee! Whee! Whee!*" each yell rising in pitch and volume, till the last was a shriek at the top of his voice, and then ended with a loud "*Achee!*" sounding rather like a sneeze.

The *volan coche* is, thank goodness, now nearly obsolete in Yucatan, where one is almost as rare as a hansom cab in Regent Street, the only marvel being how even such an extraordinarily reactionary people as the Yucatecans could have endured such a vehicle without a murmur for over four centuries. It consists of a heavy wooden cart, slung on great leather springs. The bottom is covered with broad-gauge netting, upon which rests a mattress, the uneasy bed of the traveller; the whole contrivance is usually drawn by three mules abreast.

The road between Valladolid and Chemax was not

strictly speaking, a road at all, but rather a wide swathe, cut through the virgin scrub, between the two places. The road-bed consisted of the barren limestone outcrop of the peninsula, ridges from 5 to 15 ft. high, covered with ripples and projections of limestone and great irregular boulders, interspersed between little depressions of muddy *chacluum*, the red earth of the country.

Who shall describe the misery of that journey! Crandall, the photographer who accompanied me, is short and fat, and his little legs got cramp because there was nothing to which to fix them; I am long and thin, and my legs got cramp because I could not stretch them out. The mattress kept slipping towards the centre of the cart, leaving one half of our sterns resting on the painful meshes of the netting bottom.

We had to grab on for dear life when crossing the ridges at a gallop, and then were sometimes hurled up against the roof, against each other, or painfully against the tail-board or side of the cart.

Our driver was an extraordinarily dirty and disreputable mestizo, dressed in short cotton pants, and the sketchy remains of an old *camisa*, or cotton shirt. He had a long, thin, mournful face, and Crandall christened him Ali Baba, as he resembled his childhood's conception of that hero. Later in the expedition he was known to the other men as "Abuelo," or grandpa, and became their constant butt.

He was the only one who did not bathe in the lagoon at Cobā, and when asked why, said it was very dangerous to bathe in cold water. "But," I said, "how do you get a hot bath when you are always on the road?" "Well, Señor," he said, "we poor people have many things to put up with, and the want of a bath is the least of them."

He smelt strongly of *anisado*, or anise flavoured rum, every day, and was usually maudlin drunk before midday throughout the whole trip, though where he managed to secrete his supply I was unable to ascertain, as beyond the

drawers, and shirt on his back, he did not carry a single article of food, bedding, or clothing.

The journey only occupied seven hours, but I would sooner spend seven days crossing the north Atlantic in a hurricane than undergo it again.

About half-way, we passed a very curious little shrine, consisting of an altar about 6 ft. square and 3 ft. high, carefully constructed of great slabs of flat stone. It was covered in by a roof of huana leaves, and upon the table-like surface stood a crucifix with the figure of Christ painted on it, and a number of tawdry, bright coloured tinsel and cotton ornaments hung round it, four candles, one of them still alight, and a piece of an old incense-burner—a curious little sanctuary to find thus buried in the middle of the bush, and judging by the signs of recent candles burning upon it, and the worn condition of the paths leading up to it, still very much resorted to.

On arrival at Chemax we found a fiesta in progress, to celebrate the last day of carnival. Home-made rockets were going up at short intervals, a *mestisada* was being danced in front of the church, and the braying music, added to the howls and yells of drunken Indians, promised anything but a quiet night.

The Alcalde, a stout, important-looking Indian, greeted us, and offered a large house in a strategic position, just in front of the dance-platform, but we modestly chose a small mud-floored leaf hut on the outskirts of the village, where Crandall in his hammock, and I in my cot, passed a very uneasy night, made hideous by the band, which as the night wore on, and the musicians got more and more drunk, produced sounds less and less like music. The howling of the half-starved dogs, and the night-long quarrel between a Maya couple in a hut opposite, both man and woman suffering from too much fiesta, while the children bawled in chorus, all added to the racket.

On Sunday morning we arose early, and in the dark Crandall upset our only precious half-pound of tea on the

mud floor ; on scooping it up we found we had well over the half-pound, the surplus being chiefly mud.

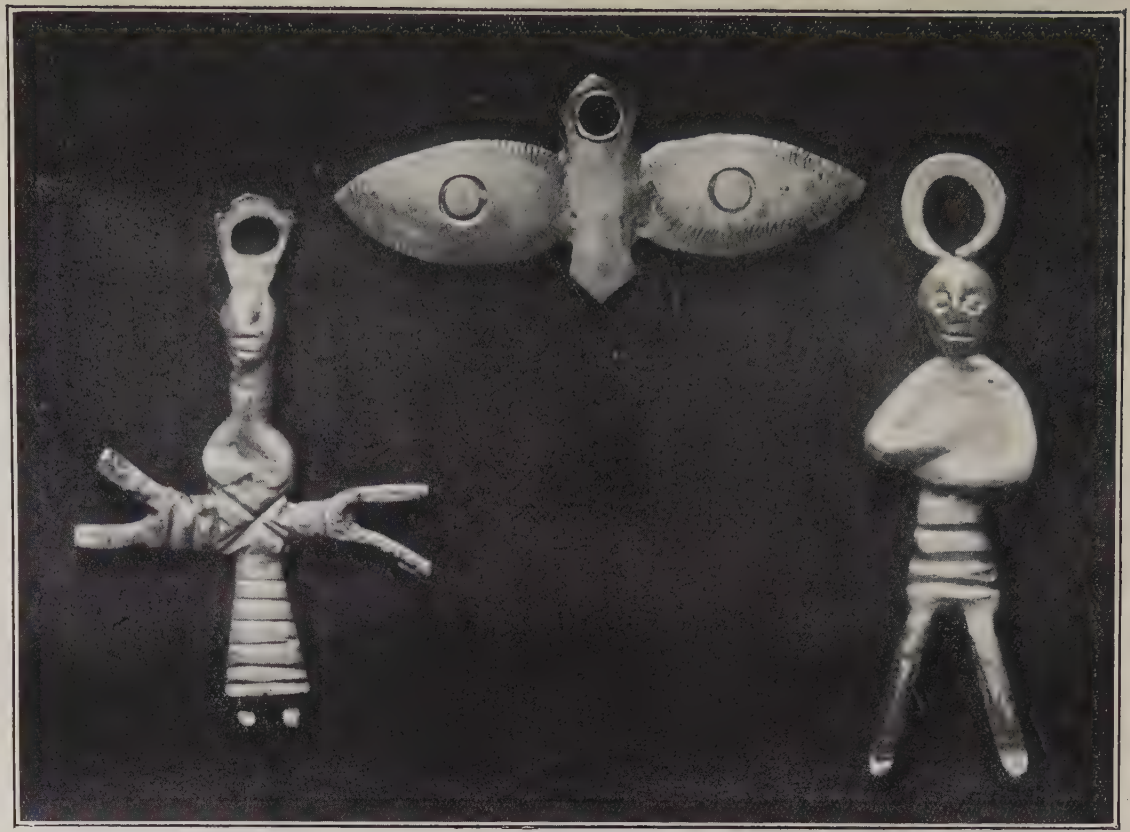
I expected Isauro, our Chichen-Itza Indian servant, to appear with five horses and an Indian guide who knew the way well—that he had been told to hire for the trip to Cobā. He did not turn up till 8 a.m., bringing the news that only two horses were available in the village, the owner of which wanted thirty pesos each to hire them for the trip to the ruins, and that furthermore, being pack animals, he possessed no saddles, which would have to be hired separately from another man.

He had also obtained estimates of the distance, which varied from 6 to 16 leagues—15 to 40 miles—and discovered that the only man in the town who had ever actually been there was an Indian chicle-bleeder, at present absent in the bush.

This was, however, the usual thing to expect in Yucatan, where no one will do any work or hire anything to a stranger, if he can possibly avoid it, and if so pressed that he is compelled to yield to superior will-power, soothes his conscience for having assisted the "Sassenach" by putting every obstacle in his way, and charging 500 per cent. above the usual price.

While waiting we walked round the village, which contains some 2,000 souls. It is a miserably poor and squalid settlement of Indians, situated outside the henequen belt, and subsisting on such poor crops as a neglected system of agriculture, combined with a poor soil, afford.

During the Spanish Colonial period, however, it must have been a place of some importance, as everywhere along the streets, amongst Maya leaf-thatched mud hovels, are the ruins of fine Spanish stone houses and ecclesiastical establishments, while the church is a really handsome and imposing edifice, belonging to the late seventeenth century, the twin towers of which are visible for a league along the Valladolid road. It is now rapidly falling into decay, and the tawdry and meretricious pictures, together with the



Twins Eye-trouble Chest Disease

VOTIVE OFFERINGS

coloured paper flags and streamers festooned just overhead in celebration of carnival, took from it all semblance of a sacred edifice.

I saw something new here. It is customary to present offerings to the Virgin, or a favourite Saint, at whose intercession a recovery has been made from any special malady. They are usually of silver or gold. At Chemax, however, the statue of the Virgin had placed in front of it, and hung on it, numerous wax images of parts of the human body, and, in addition to these, images of pigs and dogs, deposited there as thank-offerings for the recovery from sickness of these valuable animals, or as reminders that they were sick, and their owners desired their speedy recovery.

Silver offerings usually take the form of arms, legs, heads, and eyes, the last resembling closely a pair of spectacles, and known as "*Ojos de San Antonio*" or "Eyes of Saint Anthony," all made as thank-offerings for recovery from diseases of these organs, or requests to the Saints for aid to sufferers from them.

The most extraordinary offering I ever saw of this nature was the figure of a woman in silver, with a naked child projecting on each side from the region of the womb. Whether this was intended as a thank-offering for recovery after the birth of twins, or was meant to be prophylactic against their arrival, by some enceinte lady, I was never able to ascertain.

Everything being at last ready, we set out from Chemax just before midday, the cavalcade consisting of two horses for ourselves, two cargo-mules, and four men.

As we passed down the long main street of the village, everybody came out to see us off. The women and children evidently considered us a great joke, shouting from hut to hut, "*Ven a verlos, van a Cobā*" ("Come and see them, they are off for Cobā"), and "*Van a Cobā en un dia*" ("They are going to make it in a day").

I did not see the joke at the time, but later when we found the road beyond Chemax all grown up in bush, which

had to be cleared, and blocked with fallen trees, round which a pass had to be cut, we began to realise where it lay.

We made the four and a half leagues to a little Indian settlement, named San Juan del Chen, just before dusk and found a single hut with three women and innumerable children and dogs, the men not having as yet returned from their corn plantations.

On asking if they could give us a lodging for the night, one of the women, pointing to a small hut in the clearing, told us we could sleep in the house of the *Santos Idolos*, or Holy Idols.

We found that it contained, on one side, a store of corn in the ear, and on the other, an altar, upon which stood two crucifixes, decorated with cotton garments, nicely embroidered in coloured devices, like the women's *huipils*, or chemises. On the altar were sprays of habin, the ancient Maya sacred herb, so we concluded the owners were taking no chances, and honoured both the old and new gods.

We got our water from the *chen*, or well, after which the place is named—a small round hole, leading down to an immense subterranean pool of water, similar to the *cenote* at Chichen, except that it was completely roofed in by a natural covering of limestone.

We made an early start for Cobā in the morning, along a limestone track, very much grown over with bush, and, about two leagues from San Juan del Chen, struck what the guide had told us about, though we had entirely disbelieved his statement—a great elevated road, or causeway, 32 ft. wide, and varying, according to the configuration of the ground, from 2 to 8 ft. in height.

We followed this road for about four leagues to within a mile of the ruins, turning aside only when we reached the lake margin, to put up for the night near a good water supply.

This was probably one of the most remarkable roads ever constructed, as the sides were built of great blocks of cut stone, many weighing hundreds of pounds ; the central part was filled in with unhewn blocks of limestone, and the top

covered with rubble, which, as is indicated by the traces of it which remain here and there, was once cemented over.

It was convex, being higher in the centre than at either side, and ran, as far as we followed it, straight as an arrow, and almost flat as a rule.

The guide told us that it extended for fifty miles direct to Chichen-Itza, passing near the village of Tixcacal, and missing Chemax and Valladolid entirely; and furthermore that it ended at the great mound, two kilometres to the north of the Nohku, or main temple, in a great ruined building, which we saw from the top of the former.

Along its course we noticed numerous openings into *chultunes*, or underground chambers, but had not time to explore any of these, as we were anxious to reach the ruins before night.

We also passed several *sartenejas*, or rock basins, no doubt scooped out to afford a water supply to the great body of labourers which must have been employed on the road, and for whom, in this arid region, drinking-water would have been a serious problem.

At one of these holes the men drank water, but as it was full of insects and leaves, and inhabited by a number of immense black tadpoles two inches long, we, though consumed by thirst, decided to await our arrival at the lagoon.

On each side of the road were great quarries from which the stone used in its construction had been taken. Some of them showed the method of quarrying very clearly. Holes were apparently sunk round the great blocks, in which they built fires, and then, pouring water into the red-hot holes, caused the rock to split, so that slabs of it could be easily dug out.

By far the most interesting discovery, however, was made about half-way between San Juan and Cobā; here by the side of the road, and placed about a kilometre apart, we came across three small stelæ, or monoliths. Unfortunately they had lain with their sculptured sides up, and

were so badly weathered that it was almost impossible to make out the hieroglyphics with which they had been covered.

The first numerical coefficient on the first slab was undoubtedly 8, written with a bar and three dots, and that on the right of it was almost as certainly 10, written with two bars, but neither the glyphs themselves, nor their numerical coefficients, could be made out in any of the other glyph spaces.

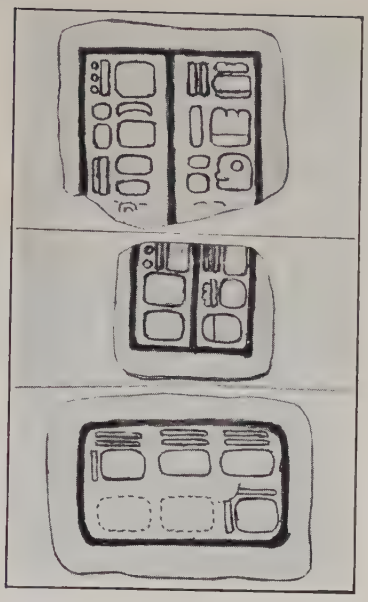
Judging by analogy with other similar inscriptions, the probabilities were strongly in favour of this inscription reading 8 Ahau, the end of a Tun 10, the Tun, or year, being represented by a winged Cauac sign, the remains of which were visible in the top glyph space on the right, preceded by a numerical coefficient of 10.

This date might fall in the year A.D. 1331, or any multiple of 256 years, either earlier or later. 1331 is too late, as at that time this part of Yucatan was under Toltec dominion, and if anything is certain it is that the city of Cobā never came under their rule. A.D. 819 is too early, as by then the Itzas had left this part of Yucatan, and were settled in Champotun. The middle date, A.D. 1075, is possibly the date indicated, as at that time the Maya New Empire was at the height of its power, and no Toltec influence had yet been brought to bear upon their religion, their art, or their calendar. But later discoveries made by the Carnegie Institution of very early stelæ near Cobā seem to point to A.D. 563 as the most probable date.

This stone, upon which had originally been sculptured eight glyphs, was broken away at the bottom, so that the last two glyph spaces had almost disappeared. It measured 26 ins. by 20 ins.

The second stone measured 20 ins. in length, and the same in breadth. The upper part had been broken away, but the numerical coefficient of the uppermost glyph, about half of which remained, had probably been 8, and of the next glyph 10. Nothing whatever could be made out of

Ladders to Stairway, Loltun



Three Stelæ from Causeway, Cobá

Altar recording September 2nd, 503
Figures meaning beginning and end of Katun

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the other glyphs, as they were too badly weathered. It seemed probable, however, that upon it was recorded the same date, 8 Ahau, the end of a Tun 10, as was found upon the first.

The third stone contained six glyph spaces. The glyphs themselves were quite undecipherable, but the numerical coefficients were fairly clear, and rather suggested a Secondary Series, the first one having 5, or one bar, to its left, and 10, or two bars, above; 5 Kins, 10 Uinals (?). The second one 10 above; 10 Tuns (?); and the third, 10 above; 10 Katuns (?). That is 5 Kins, or days, 10 Uinals, or months of 20 days each, 10 Tuns, or years of 360 days each, and 10 Katuns, or 20-year periods of 7,200 days each, after a date recorded on some other stone, not found by us.

This stone measured 30 ins. by 19 ins. The next two glyphs were undecipherable; but the last one appeared to have the coefficient 5, both above and to its left.

Immediately after passing the sculptured stones, there got up almost from under my horse's hoofs an immense cock *pavo del monte*, or wild turkey, his great body hurtling off through the bush with a tremendous racket, and his gorgeous coppery plumage gleaming like burnished gold in the sun.

To find this magnificent bird so tame here was a sure indication of the remoteness of the spot, for they are unfortunately getting to be one of the rarest species in Yucatan. They are sought by the Indian hunters for the flesh, which is far superior to that of their tame cousin, and for their plumage by collectors, as the skins and tails always find a ready market, the former as museum specimens and for feather ornaments, the latter for fans.

To what use this great causeway could have been put by the builders it is impossible to imagine. It probably links up two of the most important ruined cities in Yucatan; for I think that Cobā will be found to rank very close after Chichen-Itza in importance. It was built long before the Toltec invasion, and represents an enormous expenditure of time and labour, involving the quarrying, transport,

facing, and building in, of nearly a million tons of stone, and is unique throughout the whole of the Maya area, for though cement-covered roads exist in and around many of the ruined cities, no such elevated causeway as this has been found elsewhere.

Roman roads, proverbial for their permanence, have disappeared, and can be traced to-day only with difficulty, or not at all. Our modern roads will, if left to the forces of nature, have completely disappeared, without leaving a trace, in 500 years, but this great Maya road has withstood the passage of the centuries, in a country of heavy rainfall and luxuriant vegetation, and with the exception of its cement facing, is almost the same now as it was upon the day when the last Maya trod its smooth level surface.

And yet, so far as one can see, it was absolutely useless, for the Maya had neither wheeled vehicles, nor beasts of burden to draw them, and for walking purposes it was impossible to get a better surface than the natural limestone outcrop, when smoothed off and cleared of stones.

We must then, I think, accept the only possible explanation, namely, that it was used purely as a ceremonial road, or *via sacra*, leading from the principal city of the east to the great city of the Plumed Serpent, the civil and religious capital of Yucatan, and in later days the Mecca of Mayadom.

One can visualise the gorgeously arrayed procession of priests and nobles setting out from Cobā, their jewels, bright-coloured garments, and magnificent feather head-dresses glittering in the sun, preceded by singers and players on the flute and drum, and followed by white-robed priests, bearing grotesque censers, scattering the sweet-scented smoke of burning copal incense.

Probably if the occasion were an important one, they bore with them, in addition to offerings of jewels and precious stones, the most beautiful of their youths and maidens, marching along joyously to their sacrifice in the great *cenote* at Chichen-Itza, for were they not about to attain eternal bliss in the actual presence of the god, at the price

of one brief plunge into the deep, still, mysterious waters, and a moment's short, choking struggle?

Then, three days' march along the great elevated causeway, white and gleaming like porcelain in the rays of the tropic sun, the inhabitants of all the cities and villages along the road turning out to do them honour: the halt in the cool of the evening, at one of the many temples found, now in ruins, adjoining the road, till at last they reached their destination, the foot of the great castillo at Chichen, where they were met by a procession of priests of the great Plumed Serpent, and could look down the straight, sloping road, towards the dead, gloomy waters of the sacred *cenote* where their offerings would be either accepted or rejected by the god.

Scenes such as these must have been enacted along this causeway over a period of many centuries, and as one trod its vast appalling loneliness, one could not but reflect on the impermanence of all human institutions and faiths, for temples and palaces are in ruins, gods and religions have perished, men and women, with their loves and hates, ambitions and struggles—all, all are gone—only the road remains.

We camped for the night in a bush hut left by some chicleros, the only people who had ever penetrated to this remote spot, drawn by the precious latex of the sapote tree, the basis of chewing-gum, which, with rubber, has drawn men to remoter fastnesses of the Central and South American bush than even the lure of gold, and has incidentally uncovered secrets of the ancient Maya, which might otherwise have lain buried for centuries in the heart of this almost impenetrable tropical jungle.

Ali Baba built a roaring fire of sticks by the side of the door, or rather hole in the wall, for no door existed, and entry was free for tigers, peccari, snakes, and other possible objectionable nocturnal visitors. It was also hoped that the smoke might keep off at least the less venturesome of the

army of mosquitoes, whose skirmishers began to appear soon after our arrival.

My section of floor space was within a few feet of this furnace, and I was nearly roasted alive, but Ali, who slept nearly on top of it, was entirely unaffected by the heat.

During the night something nearly stampeded the horses and mules, but fortunately they were securely tied, and Ali arose and soon succeeded in quieting them. We could not see what had caused the disturbance, but it was probably a wandering jaguar, prospecting for food.

Next morning at daybreak we set out along the shore of the lagoon towards a great bush-covered mound on its eastern side, which the guide told us marked the highest building. The lagoon, a beautiful little stretch of clear blue water, about half a mile long by a quarter broad, was heavily wooded right down to the shore. A dim mist covered it, and great flocks of water-fowl flew in all directions, calling weirdly through the fog, as they went about their day's work of foraging for food.

The only fish in the lake were tiny little fellows, less than two inches long, but enormous quantities of *hooties*, great fresh-water snails, were to be picked up along the shore.

This lagoon, and its twin to the north, had a sentimental interest for us, for we were probably the first Europeans whose eyes had ever seen them, and whose mouths had ever drunk of their waters; no craft can have navigated the surface of either since the last of the Mayas left the last dug-out on its banks some five centuries ago.

The very snakes seemed tame in this remote place, for I passed within a step of a 3-ft. " coral," and he never even moved. Possibly an hereditary trust in man had come down from those of his ancestors whom the Maya worshipped as living images of their great Feathered Serpent god, and zealously protected. If so, he was vastly mistaken, for I cut a switch and slew him incontinently, lest one of the men following might tread on his tail.

We first passed a great pyramid, now a mere mass of

ruins, at the base of which I perceived from a distance, with feelings of intense excitement, two monoliths, still standing upright.

On rushing up to them, however, in the full expectation of being able to date the city, I was woefully disappointed, for the stone was so weathered that very little but the outline of the glyph block could be made out on the first monolith, and nothing whatever on the second but the deep-sunk line which had enclosed the inscription.

Upon the first stone eight glyph spaces could be traced on each side of a human figure, sculptured in low relief, of which very little but the sandalled feet now remained.

This stone was 4 ft. long by 3 ft. broad, but the top had been broken off, probably by the fall of a large tree centuries ago, and was lying on the ground in front of the stela, inscribed side down.

In nearly every case where this had happened, the hieroglyphics beneath were well preserved, as they had been protected from the weather, but in this case the limestone was so poor in quality that it had flaked away from contact with the earth, leaving nothing but the outline of the glyph blocks, and no trace whatever of the glyphs themselves.

Immediately south of this mound, and almost touching it, we came upon a vast edifice standing on a terrace, approached by a flight of steps from the water side of the western lake. It consisted of a great stone-faced, terraced pyramid, corresponding to the castillo at Chichen-Itza, and the house of the dwarf at Uxmal, but probably higher than either of these structures, standing nearly 150 ft. above the lake level, though as I had no means of taking the altitude with me beyond an aneroid, this needs verification.

On each side of the courtyard were ranges of buildings, now in a very ruinous condition, and at the base of the pyramid a broken stela, still standing upright. This measured 56 ins. high by 40 ins. broad, and showed divisions into over sixty glyph blocks, all of which were so badly weathered as to be entirely undecipherable.

In the first row, occupying blocks five and six from the top, were two numerical coefficients, 5 and 10 respectively, but even these were extremely doubtful.

In front of all the three stelæ encountered, small altars had been constructed of flat stones; upon these were the remains of many candles which had been burnt upon them, and on one lay a small metal receptacle, which had apparently served as an incense-burner.

Servolo Canul, our chiclero guide, told us that Indian hunters, who passed here when out after game, with which the place swarmed, always burnt a candle in front of the *santos idolos*, to invoke their aid in the chase, as, though the Christian santos were helpful in most emergencies, the ancient gods still ruled the forest, the lagoons, and the *cenotes*, and for success in hunting they gave better returns to the candle than any of the santos of the Christianos.

Now a candle, even a one-cent dip, to a hunter in the bush, several days' march away from the nearest supply, was a very valuable asset, as it probably meant the difference between comfort and discomfort when he camped at night, and, if he offered it to any god, new or old, he did so only in the sure and certain hope of getting good value for his money.

It will be noticed that the same term, *santos idolos*, was used to describe the ancient gods as was used by the woman at San Juan del Chen to describe the crucifixes in her little sanctuary.

CHAPTER VIII

Naming the temple mound—Structure upon its summit—Group of ruins at which the causeway ends—Why these ruins had never been vis ted by Europeans before—Great ranges of ruined buildings, running beside the lagoon—A vast stairway, with treaders 4½ ft. broad—Strong indication of communication in former days between Cobá and Lubaantun—Two-storied, stucco-covered buildings in Tuluum style—Communication between Cobá and the East Coast civilisation—A paved bathing-place and wharf in the lagoon—Long arched, stone passages connecting sunk plazas, surrounded by ranges of Maya arched rooms—The imprint of the red hand, which would still identify its owner, were he alive—Curious inverted stairway roofs—Possible sepulchral chambers—Food gives out, compelling our return—Absence of game at Cobá—Why the Spanish conquerors missed so many of the ancient Maya ruins in Yucatan—Three types of Maya civilisation found at Cobá—Cobá never under Toltec dominion—The men have to eat vegetables found in the bush—Ruins extend for miles—A primitive sugar-mill—The operator plays a joke on me—An omnivorous mule.

I CHRISTENED this great structure the Nohku, or Great Temple, in Maya, as the Castillo seemed an inappropriate name for a building which, unlike that at Chichen, had never been occupied by the Spaniards. Upon its summit stood a small single-chambered temple, with a narrow courtyard in front. The interior of this little temple had been covered with stucco, painted bright red, now nearly all peeled off.

From its summit a perfectly magnificent view was obtained over the whole surrounding country, but as far as the eye could reach nothing was visible in all directions except the unbroken, green, flat expanse of immemorial bush.

So flat indeed was the land that at this elevation it should have been possible to see sailing vessels passing on the Caribbean, some thirty miles away, though along this barren,

sparsely inhabited shore boats are of unfrequent occurrence.

About two kilometres to the north-east we saw a great group of ruins, covered with vegetation, standing up like gaunt sentinels in the forest, and the guide informed us that it was at the foot of this group that the great stone causeway ended.

Unfortunately neither time nor food permitted of our visiting it, as we had barely two days' provisions left, and the men had but one, and that only plain, dry corn-cake, which, with water alone, makes a nutritious but uninteresting dietary.

It is not improbable that here may be found a stela, bearing a readable Initial Series inscription, which will date the ruins beyond the shadow of a doubt, as the limestone we encountered along the road was of a tough, resistant character, better able to withstand weathering than the softer material used in the stelæ found in the ruins.

The situation of the Nohku group of ruins was ideally delightful, filling up, as it did, almost the whole of a little isthmus, separating two beautiful, clear, blue lagoons, the one roughly 1,000 by 500 yds., the other 1,000 by 300 yds., the latter curving on itself, somewhat like a boomerang.

It seemed incredible that this ruined city, with the remarkable causeway, unlike anything found elsewhere throughout the Maya area, and the two beautiful little lakes could have remained unexplored up to the present day, for it is probable that we were the first Europeans to visit them ; but it must be remembered that they are situated in the least known and most sparsely populated region of Yucatan, and the nearest settlement, the Indian hut of San Juan del Chen, is twenty miles away, through an almost trackless wilderness, traversed only by chicleros and Indian hunters.

Stephens, as already stated, in his *Travels in Yucatan in* 1841, mentions having heard the name Cobā from the Indians, though he never got near the place, and had it not been for the recently made translation of the "Chilam

Balaam" of Chumayel, I should never myself have thought of going there.

Running due south from the Nohku was a great range of buildings, 240 ft. in length, and varying from 15 to 40 ft. in height. Maya arched rooms were found amongst the ruins of these at three different levels, indicating a height, at one time, of three stories.

From the southern extremity of this range a second series, 300 ft. long, ran due west. This was of a uniform height of 20 ft., and broken in the centre by a stairway leading to the summit, flattened along the whole extent of the range, and only 6 ft. broad. From the western extremity of this last range a steep mass of ruins extended for 100 ft. due north.

This briefly describes the frontage of the group on the western lagoon.

Our next survey started well to the north-east of the Nohku, where we discovered a great stone stairway, 120 ft. broad, with five rows of steps, the treaders being $4\frac{1}{2}$ ft. deep, with a rise of 12 ins. The steps were constructed of immense blocks of cut limestone, 4 to 5 ft. long, and were precisely similar to those we discovered at Lubaantun.

These are the only two places in the Maya area where stairways of this type have been encountered, and so similar are they in every respect that the conclusion is irresistible that there must have been at some time intimate communication between the two places.

This stairway led to a flat plaza, 60 ft. long, terminating in a second flight of stairs exactly like the first, leading to a second plaza, 90 ft. long, beyond which was a great mound of ruins. On each side of both plazas, completely shutting them in, were great masses of ruined buildings.

Immediately to the east of the larger plaza was one of the most remarkable structures in the whole group. It consisted of a two-storied, flat-roofed building, the floor of the upper and roof of the lower story of which had been formed by great flat flags of limestone, laid across beams,

supported on pillars, both probably of sapote wood, as there were no traces whatever amongst the debris covering the floor of the former existence of stone columns.

The lower chamber still showed traces of an exceedingly hard red stucco, which originally had covered the interior of the entire building.

This type of building is known as Tuluum style, from the ruins of Tuluum, on the east coast of Yucatan, where it was extensively employed. It belongs to a civilisation which was not developed till after the fall of Chichen-Itza, about 1191. It was confined exclusively to the east coast of Yucatan, and probably persisted for a considerable period subsequent to the Conquest, as this part of the peninsula came but little under Spanish influence, and was in parts never subject to Spain at all.

It was characterised chiefly by the introduction of houses with flat roofs, supported either on stone columns or sapote beams, and by a tremendous efflorescence of shoddy, meretricious decorations, chiefly taking the form of crudely made, brightly coloured stucco walls, and statues of men and animals.

The presence of flat-roofed buildings, decorated with painted stucco, was a clear indication that the city of Cobā must have been flourishing, and in close communication with the East Coast civilisation, somewhere between the early part of the thirteenth and the middle of the sixteenth centuries.

This Tuluum-style building was surrounded on all four sides by ranges of narrow, arched, Maya rooms—a combination unique, so far as my experience goes, amongst the Maya cities.

Adjoining the building was a broad, sunk plaza, bounded on the north by another flat-topped mass of ruins abutting on the foreshore of the eastern lagoon.

At one place a flight of stone steps descended from a flat-topped mound to the lagoon-margin, and was continued as a pavement along the floor of the lake itself, forming a

delightful bathing-place and wharf for canoes, for both of which purposes it was doubtless used by the ancient inhabitants.

At the north-west corner of the sunk plaza we came across a narrow Maya arch leading into an arched, stone-faced passage, about 120 ft. long and 4 ft. broad, which, passing in a south-easterly direction, opened into a second small sunk plaza, completely surrounded by a range of Maya arched rooms.

The doors of these rooms had for the most part been closed by the fall of masses of masonry, but access to many of them was to be obtained through openings in the top, where the roofs had caved in.

They contained many curious recesses, of all sizes and shapes, sunk in the masonry of both the sides and ends of the rooms. Some of these recesses were from 5 to 6 ft. in depth, and all were covered with stucco, which in many cases was painted red.

In more than one place we found the red imprint of the Maya hand, which was made by pressing the palm, dipped in red paint, against the smooth surface of the stone or stucco, and indicated, when used in this way in a building, as the signature, so to speak, of the architect, that the structure was completed.

In some cases the thumb and finger whorls could still be made out quite clearly in these red signatures of the ancient builders, made from five to fifteen centuries ago, so that, were the signatories to come to life again, they could be identified with as much certainty as if their finger-prints were preserved in the archives of Scotland Yard or Mulberry Street.

The ceilings were formed by the Maya arch, but, instead of the sloping variety usually found, they were constructed in the form of a double inverted stairway.

On several occasions we came across rude walls of rough stones, built without mortar, which had been erected across the chambers, evidently by later occupants. These may

possibly have been intended to wall off sepulchral chambers, but the time at our disposal did not admit of our investigating any of them, so they had to be left for later explorers.

To the south of this plaza were the ruins of another two-storied, Tuluum-style building, and to the south of this the remains of one extremity of what had evidently been a curious oval room, most un-Maya in appearance, beyond which was another great mass of ruins leading to a large terrace overlooking the foreshore of the eastern lake.

Our stay at the ruins had been a delightful one, as the high bush all around the northern end of the lake, where our camp was situated, was almost free of undergrowth, and completely tickless, a blessing which only the resident in Yucatan during the dry season can appreciate, where, after the shortest walk, even in the well-cleared bush around a *hacienda*, one often comes in with a couple of dozen of these miserable pests clinging to one, necessitating constant gasolining, bathing, and changing of one's clothes.

The lagoons afforded good bathing-places, so rare in the peninsula, where water, unless pumped up by windmill from the bowels of the earth, was practically unknown, and though we had to pay for the water supply by the presence of the ubiquitous mosquito, for which it provided the only convenient breeding-place probably for many miles around, we had the comforting assurance that he was incapable of inoculating us with malaria, yellow fever, filariasis, or even the common or garden septic micro-organisms, for the simple reason that no human being existed within twenty miles from whom he, or rather she, could obtain a supply of the necessary germs.

We left with great reluctance, for our food had almost entirely given out, and the nearest supply was two days' journey away, which meant four days before we could expect to get any in.

In one respect we were greatly disappointed, as our chiclero had told us that game came down to the lagoons for water in great numbers, and that tiger, wild hog, deer,

curassow, gibnut, and wild turkey were to be obtained without any difficulty. With the exception, however, of a single wild turkey, we never saw a head of game.

We had brought a 12-bore and an acetylene lamp, for night-hunting, but were always far too dead-beat at night to do anything but boil hot water for tea, eat a very frugal supper, tumble into our hammocks, and sleep dreamlessly till daybreak. No doubt, had we been able to get up energy enough to go out night-hunting, we should have got game, and been able to prolong our stay several days, but one cannot burn the candle at both ends, and in the middle, or, at any rate, it is "not done," except perhaps in more civilised surroundings.

We had had a wonderful experience in discovering in the heart of the jungle of Yucatan this vast city of an ancient people, whose beginnings probably go back into the dim mists of the past, and whose civilisation must have endured right up to the Spanish Conquest, and it may be even for a century or so beyond that period.

One often hears people express wonder that the great ruined cities of Yucatan were so frequently overlooked by the Spanish conquerors, and the fact is usually ascribed to their lack of interest in the history and ethnology of the conquered races, whom they regarded, alive, solely as sources of wealth, which might be wrung by sweat out of their unfortunate bodies, and of spiritual kudos, which could be acquired after their death out of the salvation of their sinful souls.

But this was not the whole truth, as anyone who has visited the remoter outposts of Spanish colonial rule throughout the peninsula soon begins to realise. In all these settlements are found great, strong-walled, stone houses, with narrow openings—more fortresses than dwellings—from which with great difficulty, and in constant danger of their lives, the conquerors moved about the surrounding country, full of hosts of hostile Indians only awaiting an opportunity to revenge themselves for the persecution they had

undergone upon any wandering Spaniard who might fall into their hands.

They were, in fact, bottled up in these settlements, and rarely came in contact with the Indians, except as slaves, and never went among the wilder tribes of the east, except in large punitive or foraging expeditions, so that it was really little to be wondered at that a ruined city, even of the size of Cobā, should have escaped them, even though it was not entirely deserted at the time they came into nominal possession of the country; for it was situated thirty miles from Chemax, their nearest settlement, and in the very centre of a country which has never been completely subdued to this day.

Then, after the War of the Castes, in 1847, the Spaniards were completely driven out of this part of Yucatan, which to this day is solely in possession of the Maya, so that till *chicleando*, as the Indians call chicle-bleeding, came in, probably no one but an occasional wandering Maya hunter has been near Cobā for close on a century.

Perhaps the most remarkable thing about this city was the fact that in it we found, brought together under one roof, as it were, three different types of Maya civilisation, supposed to be separate and distinct, though often found merging the one into the other at certain sites.

First, undoubtedly, in point of time, we have the Older Maya, represented by the Nohku, the stelæ, and the various ranges of arched Maya rooms ; second, the Tuluum, or East Coast type, represented by the flat-roofed, stucco-covered buildings ; and finally the Lubaantun type, represented by the great stairways, found only here and at Lubaantun.

It was easy to understand the presence of the Tuluum style of architecture mixed with the Older Maya, for the former was but an offshoot of the latter, and Cobā was probably the nearest Maya city to Tuluum itself, distant not more than about thirty miles, so that communication between the two must have been frequent and free during probably two or three centuries.

But the duplication of that extraordinarily characteristic Lubaantun product, the broad-tread stairway, was far more difficult to account for, and would seem to indicate either that architects from Lubaantun had, at some period, found their way northward to Cobā or that Lubaantun itself was founded, at a comparatively late date, by south-bound emigrants from Yucatan.

The resemblance between the stairways at the two places cannot be regarded as accidental—the many curious features, the immense breadth of the treaders, which are faced with great, long blocks of limestone, and filled in behind with rubble, the rounding of the edges of the facing-stones of the treaders, and slight slope upwards of the rises, were practically identical in both.

Another remarkable circumstance was that although Cobā must undoubtedly have flourished during the whole of the Toltec occupation of Chichen-Itza, and intercourse between the two cities must at one time, as indicated by the presence of the great causeway joining them, have been very close indeed, yet not a single Toltec feature was to be found throughout the whole city, not a Chacmool statue, a serpent column, an Atlantean figure, not, in fact, a single sculpture in the round, of which such innumerable specimens are to be found in every Toltec site as to lead one to conclude that sculpture in stone must have been one of the chief recreations of the populace, and not infrequently of such utter crudeness as to suggest the work of very young children, or imbeciles.

It is not improbable that the Toltec conquerors, who were more or less segregated in Chichen-Itza, were not strong enough to attack and subdue such a stronghold of the Maya as Cobā must have been, and one so remote from their own capital. They were indeed very likely in much the same position as the Spanish conquerors, some three centuries later, and while nominally in possession of the country, were actually afraid to move far from their own base, except in large, well-armed parties.

The probabilities seem to be in favour of Cobā having been founded before Chichen-Itza, as the only Initial Series date at the latter is two and a half centuries later than the earliest at Cobā.

It is evident that Lubaantun architectural influence crept in at a later date, as is manifested in the construction of stone-faced pyramids and great stairways, and still later Tuluum influence, in the building of flat-roofed, stucco-covered houses and temples, and, further, that during the Toltec occupation the city retained its purely Maya characteristics and population, entirely uninfluenced by the new civilisation and religion introduced from the west.

We managed to make the earliest start from Cobā that we had accomplished during the whole trip, as the men had completely exhausted their corn-cakes, and had come down to stewing, for early breakfast, some little green vegetable they found at the ruins ; moreover, they knew nothing else was procurable till we reached San Juan del Chen, so, just after daybreak, the mules were loaded, the horses saddled, and we set off.

About five miles from Cobā we passed quite a considerable group of ruins, one range, about 15 ft. high, running parallel with the road for 250 ft., and another lower range for 300 ft., but both so badly ruined that no plan could be made of them without a great deal of clearing.

The Indians told us that ruins were scattered in great profusion all through the bush, so that the entire group must have been a very large one, extending for several miles in every direction.

Just before reaching San Juan del Chen, on the return journey, we passed an Indian hut, outside which an old Indian man and his grandson were crushing sugar-cane in a little home-made mill. This consisted of a couple of upright rollers of sapote wood, revolving around each other, between which the cane was placed, the juice running down a little wooden drain into a vessel beneath. The motive power was provided by the old man and boy, clothed only in narrow

loin-cloths, pacing round and round a circle, shoving a horizontal beam, which operated one sapote cylinder, from which projected sprockets, operating in square holes cut in the other cylinder.

As soon as the receptacle was full the juice was carried off and emptied into a large iron pot standing on a three-stone fireplace, and, this being filled, boiling commenced.

It was a long, slow, laborious process, from the little patch of cane to the hard brown blocks of sugar, in which were embedded dirt and insects in great abundance.

By far the largest output of the factory consisted of pumpkins, in which holes had been bored, and which were then allowed to boil in the cane-juice, the sugar-saturated pumpkin-meat making an extremely delicately flavoured sweetmeat, which should command a wider market.

We lay down after our long ride, and enjoyed the double pleasure of chewing sugar-cane and watching someone else at work.

The job seemed so easy that I determined to try it, took the beam from the old man, and found it went with extraordinary ease, the boy feeding the canes between the rollers one at a time.

After a dozen rounds, however, I found it going harder and harder, and at last came to a complete standstill, and it was not till I heard the shouts of laughter from the by-standers that I realised what had happened.

The Indian boy, though his face was dull and impassive as a brick wall, and he did not appear to have the intelligence of a hook-worm, had gradually increased the number of canes shoved between the rollers, first to two, three, four, and finally to six, this making the last straw, or cane, which broke my back!

When his eye caught mine he broke into a broad grin, and even the old man could not restrain a senile cackle, his wrinkled old face and toothless jaws enjoying probably the first laugh they had known for years.

While waiting here our best mule ate a huge bellyful of

xix—pronounced "shish"—the sugar-cane after the juice has been squeezed from it, and blew up like a poisoned pup. Fortunately, however, we were almost at our destination, and she managed to stagger in. Next morning she had completely recovered, and tackled her breakfast as if nothing had occurred.

I never before saw an animal with such a marvellous digestion and catholic appetite, and she had developed to a fine point the technique of picking up a green breakfast from the bush while pacing along the road. On one occasion, when tethered in the forest, she ate nearly the whole of the leaves of a wild pineapple while we were getting lunch. These are covered with long, sharp prickles, tough as a rope and bitter as aloes; yet she seemed thoroughly to enjoy the repast.

CHAPTER IX

The Indian's love of the soil—Sacred nature of his corn plantation—Sacrifice of a certain victory over the Spanish invaders to return to the plantation when the rains began—A successful wizard—Witchcraft still persists among the Indians—A witch's curse proves fatal to three boys who assaulted her—Ali Baba and the mule—We leave Yucatan—A bungay, upon which Zane Grey was reported to have been wrecked—Casual stevedores—A lot of militant passengers—Arrive at Isla de Mujeres—Island full of snakes; how do they get there, thirty miles from the mainland?—Interesting fauna—A sea-sick Yucatecan merchant loses interest even in his money-bags—Our fishy cook—Arrival at Cozumel—Slow port authorities—American rum-runners interned indefinitely—Joe and I find something to occupy our time till lunch.

FIVE miles from Chemax we met an old Indian staggering along under a load of pumpkins, slung over his back in a *macapal*, the netting bag in which they carry everything from a baby to a sack of beans.

I got into conversation with the old man, whom we will call Uxben, or ancient, in Maya. He told me he made his *milpa* seven miles out from the village, but his little patch of land was, like himself, nearly worn out, and the few bushels of corn, beans, okras, and pepper it produced were hardly enough to keep body and soul together, even in his tough, attenuated old carcass.

"Why," I asked him, "do you walk all this long way to make a small plantation, at your age, when with a little work in the village you could earn twice as much?"

He glanced at me with a look of surprise at my ignorance, as he replied, "But, señor, it is my own land." And this "It is my own land" epitomises in five words the attitude of the Maya for the past two thousand years. They love the soil tilled by their fathers, the land of their birth, which

has almost come to take the place in their affection and regard of their ancient gods.

The making of a *milpa*—or corn plantation—has become to some extent a religious ceremony, which no inducement one can offer will persuade them to forgo. When the first rains of the wet season begin the archæologist will find that his Indian labourers grow uneasy, and depart, one by one, to their *milpas*; nor will even double or triple wages tempt them back to their work till the *milpas* are finished.

During the War of the Castes, in 1847, the Maya Indians rose in rebellion against the horrible cruelties perpetrated upon them by their Spanish taskmasters.

Naturally brave, and vastly outnumbering their enemies, they soon possessed themselves of the greater part of the peninsula, and two thousand of them were camped round Merida, the capital. With the fall of Merida complete success would have attended their arms, the entire land would have been in their hands again, and the hated oppressors driven back to the sea, as had been prophesied centuries before by one of their priests, a prophecy in the fulfilment of which there was a firm and universal belief amongst them.

At this psychological moment, however, the first rains came on rather earlier than usual, and the army began to melt rapidly away. Every night a few hundreds would disappear to their distant villages and settlements in the bush, drawn even from the great patriotic undertaking of freeing their country, recovering their ancient land, and revenging themselves for centuries of oppression, by the lure of the *milpa*—the thought of the gentle rain falling on the cool, fertile *chacluum*, or red earth, and no one there to plant the corn and beans which meant life to the family during the coming year.

And so the cause was lost, Merida was saved, and the yoke of the hated stranger, now probably never again to be cast off, was forged anew around the necks of the aboriginal owners of the soil.

The Catholic priests ascribed the relief of the city to a

miraculous intervention of the Saints, in answer to the frenzied prayers of the faithful for their aid in dire distress; but the Indian priests, the *chacs* and *mens*, could tell a different tale, for they knew that it was due to the ineradicable millennium-old instinct of the Maya, strong and irresistible as the homing instinct of the pigeon, to turn up at his *milpa* with the first rains—an instinct stronger than patriotism, more compelling even than hatred, which is of all human emotions possibly the most powerful, for it overcame both of these, though their priests and leaders, and even the Indians themselves, strove valiantly to overcome it.

This old man had himself, in his middle age, been a *chac*, or priest, amongst the Maya, and after a short sojourn as servant to a medical practitioner in one of the larger towns had returned to his own village and set up as a sorcerer, assisted by such powerful magic as Epsom-salts and weed-killer. This was in the old days of Yucatan, as one has to go to quite remote parts now to get away from the empty tin can, broken bottle, and saline purge—insignia of civilisation.

His first triumph was effected when he locked horns with an ancient female catechist, who made her living by officiating at *novenas*, and similar religious ceremonies. She naturally resented the arrival of a heathen sorcerer in a field which had been exclusively hers, and where the crop of loaves and fishes was by no means despicable.

Uxben, however, undertook to write on the grass of the plaza the cross of Quetzal, if she would produce the Christian cross. If one failed, the other should be considered to have prevailed, and if both succeeded, a second trial of magic would have to be resorted to.

Needless to say, with the aid of a little weed-killer the feathered cross of Quetzal soon appeared in brown grass, whereas the Christian cross failed to materialise.

Uxben's career was unfortunately brought to a close by an unpleasant incident connected with the sudden and painful death of a rival practitioner, in which the weed-killer again appeared to have played a prominent part.

It is curious how persistent the belief in the wizard and the witch, or *xpulya*, is in the Indian mind. It is extremely difficult to get to see things and occurrences, especially what appear to us as merely natural phenomena, requiring no explanation, from the Maya point of view, and it is still more difficult to get them to talk of their superstitions, beliefs, and the few surviving ceremonies of their ancient religion, but the following little story will illustrate their faith in the *xpulya*, which is practically universal amongst the eastern Maya.

About the year 1840 there lived in a little Indian village in the remote, eastern part of Yucatan an old woman who had the reputation of being a witch. If anyone offended her they were punished by being seized with pains in the stomach and in the bones; they vomited snakes, eggs, and even whole chickens. In one case she had presented a man with a bowl of *atole*, which, when he took it to his house, turned to blood and immediately became full of maggots; enceinte women she had made to bear little dogs or monkeys.

One day, with the aid of her long stick, she was limping slowly across the plaza where a number of youths were playing. "Come, let us chase the witch and drive her into the bush," cried one.

"No," objected others, "our parents have told us not to interfere with her—first, because she is an old woman, and second, because she may bewitch us."

"Fools," said three young brothers, named Juan, José, and Pedro, leaders of the band, "we are going to chase her and worry her—she can't hurt us."

With that they set out after the old woman, and, soon overtaking her, hissed at her, shoved her about, and called her evil names. Turning on them, she asked why they were treating her so cruelly. They replied, "Because we feel like it, and because you are a witch."

On this they took up sharp pieces of rock, and, hurling them at her, wounded her in the head, the breast, and the knee, till, stricken to the earth, dizzy with pain, her white

huipil and *pik* stained with blood, she was compelled to call for help, and the neighbours, running out to the rescue, stopped the boys' cruel sport. The old woman got unsteadily to her feet, and, pointing her right hand at the lads, who were now feeling rather sorry for their escapade, with a look of cold fury on her face, said, " Cruel, cowardly boys, you have wounded me in the head, the breast, and the knee, and each of you shall be wounded in the same place, not with stones, but with bullets, which shall bring about your deaths in the flower of your youth, and each of you shall leave behind poor widows with tiny orphans, whom you shall never live to see grow up."

Years passed, and the terrible War of the Castes burst over Yucatan. The little village was overrun by savage Indians, rebel bands from the south and east, who burnt the houses, killed as many of the inhabitants as were not able to escape into the bush, and left it completely deserted. But the house of the witch was left untouched, nor did they steal even as much as a fowl, a pig, or an *almud* of corn, badly in need of provisions as they were, for her reputation had spread widely throughout the whole country, even to the bush-hidden settlements of these savage and barbarous tribes, and they were held in check by a wholesome dread of her enchantments.

A few years later, when the rebellion had been partially quelled, and such as were left of the former inhabitants had returned to the village, they found her there in her little mud hut, her pigs, fowls, and goats around her, apparently unchanged since they had last seen her.

The village being on the outskirts of the hostile Indians' territory, was made a military post, and the three brothers, Juan, José, and Pedro, served in the ranks of the national army.

One day, in a sortie against the enemy, Juan, the eldest, was shot in the knee at close range, the joint being shattered by the musket-ball. No proper surgical aid was available in this remote spot, and he rapidly developed blood

poisoning, from which, after lingering a few days, he died, leaving an enceinte widow and three boys.

On hearing of this occurrence, it is said, the old woman murmured, " One—may God have mercy on his soul."

Seventeen years passed, and Yucatan was precipitated again into civil war, during the struggle for supremacy between the Emperor Maximilian and the Republican Government. José, who had shown great courage during the War of the Castes, again took up arms, and joined the Republican army as a commissioned officer, whereupon, at the battle of Izamal, he was shot in the breast, and died instantly.

" Two," said the old witch when the news was conveyed to her, the tears running down her cheeks. " They cannot escape their fate. Tell the remaining one never to go to war, never to have a firearm in his house, nor, if possible, to go near one."

Pedro, profoundly impressed by the fate of his brothers and the witch's warning, sold his musket, and took care to keep out of the way of all firearms. On one occasion, however, he had retired to his little *hacienda*, and was there joined by two friends, one of whom carried with him his gun ; but so preoccupied were they with the business which had brought them together that this fact entirely escaped Pedro's notice.

Walking, on the day of their arrival, through a narrow trail in the bush, they came to a cut-off round a large tree, over which the friend climbed, pulling his musket after him ; but unfortunately, in doing this, the hammer became caught up in a liana, was pulled back, and allowed to fall on the cap, discharging the firearm, and the bullet, hitting Pedro, who was walking immediately in front, in the head, killed him instantly.

" At length, the last one," wept the old woman, on seeing Pedro's corpse carried into the village by his sorrowing friends.

She was now well over ninety, and had for some time been

eking out a miserable existence on public charity, for she was too old and feeble to work for herself any more, and charity in her case was neither very gracious in quality nor substantial in quantity. After this last death, however, it ceased entirely, and a few days later she was found dead in her hut, miserable, abandoned, despised, without anyone to say a prayer over her or to close her eyes in death.

Just before we arrived at Chemax a good deal of amusement was caused by poor old Ali Baba and his two mules. He was well ahead of the outfit, when the leading mule took what Ali thought was the wrong turning, and, after a long and tiring, stern chase through the bush, was at last turned back reluctantly on his tracks. We met them returning towards us, Ali swearing vigorously, between thwacks with a cutting liana across the mule's behind, the latter taking the back-track evidently much against her will. When, amidst howls of laughter from the men, it was explained to Ali that the mule had really taken the right road, and her memory had been superior to his, he was speechless.

In company with Joe, my engineer friend, with whom I had arrived in the peninsula, I left Yucatan for Belize on March 12th on board the *canoa Xpit*, a two-masted, flat-bottomed, under-engined old tub, whose only claim to distinction lay in the fact that Zane Grey was reported to have once been on board when she was wrecked. I cannot vouch for the truth of this rumour, but it was sufficient to give her a prestige amongst the other *canoas* of Progreso which she has retained ever since, and one of the first things confided to the intending passenger is, " Ah, señor, in this very boat was wrecked the great American author, Zane Grey." Personally, I must admit, I should have preferred the intelligence that Dr. Crippen had once made a safe passage on her, and had not been wrecked.

Her curious, and singularly uneuphonious, name has the following derivation. " Petrona " is a common Spanish Christian name, whose diminutive is " Pet " ; this is turned into " *Xpet* " by the Maya (x, pronounced sh, being a

feminine prefix), and "*Xpet*" finally converted to "*Xpit*" (pronounced shpeet), as it is easier to say.

She was due in Progreso at the end of February, but had, it appeared, wandered off to some of the southern ports in search of cargo, and dropped in casually some ten days to a fortnight late.

When we arrived, on Friday morning, most of the cargo was lying forlornly at the wharf, with a Customs officer watching it and a crowd of Liga stevedores, smoking cigarettes on board, contemplating it, and it was not till about 2 p.m. that they started loading in a very leisurely manner.

The Liga in Yucatan is the Trades Union of England, and works with great efficiency and undoubtedly with enormous benefit to the workers, who in the evil days of peonage were little better than slaves.

We had about a dozen deck passengers, who were all under the misapprehension that they could use our little cabin—the only one on the ship, and so full of bags of sugar that there was a bare 4½ ft. between them and the roof—to stow their baggage in, an idea of which they had to be disillusioned quickly and completely.

They removed their stuff with great unwillingness—indeed I thought at one time that we were going to have trouble, as three of them were arrayed in khaki breeches and shirts, bandoliers of cartridges cincturing their shoulders and waists. They were armed with cheap American revolvers in near leather—but nearer paper—holsters, through which muzzles were visible, like a big toe through a stocking-hole.

After two days' exceedingly stormy passage, during which the captain on several occasions contemplated anchoring under the land, but had to be dissuaded, we arrived at Isla de las Mujeres, or Women's Island. This little sand-covered outcrop of limestone is only about five miles long by one mile across, and is covered with dense low scrub.

We walked to a small ruined Maya temple at the south end of the island, and suddenly encountered, where one narrow trail crosses another, a huge, yellow-jawed tomagoff —the most fearless, poisonous snake in Central America— stretched out straight along the trail.

Not expecting snakes here, I was almost on top of it, when I happened to drop my eyes, and jumped back with a recoil that nearly knocked Joe off his feet.

The snake, however, never budged an inch, and, on approaching cautiously, we found that it had been staked to the ground in this position, either as a practical joke on wayfarers or simply to " larn it to be a snake."

We found, on enquiry, that the island was a perfect hotbed of snakes—coral, tomagoff, walpoch, rattler, tree-snake, and even the great woula, the Central American constrictor. How such an assortment of snakes can have found its way to this little island is incomprehensible, for the nearest land is thirty miles away, and it is inconceivable that any snake would deliberately undertake a swim of this length.

In many ways the fauna of the island is well worth study by a competent zoologist, for I never saw such a profusion of butterflies, moths, beetles, bees, and other insects, though the obnoxious mosquito is conspicuous by its absence, as, notwithstanding the presence of cattle, are the still more obnoxious tick and red-bug.

The captain's ostensible reason for not leaving on Monday evening was that, in spite of the calm which prevailed on the island, the weather was very bad outside; his real reason I discovered when, accompanied by the rest of the crew, he disappeared on shore to a *fiesta*, the approach of which was already heralded by the wheezy notes of an accordion, and the animal-like howls of those dancers who had got their first taste of rum.

We got off at 3 a.m. on the following morning, and about six I was awakened by dismal groans from a recess in the cabin, just beneath the hatchway.

On getting up to investigate, I found a large, fat Yucatecan in the throes of sea-sickness. He was lying on a bag of bottles of soda-water, which I tried to shift in order to get one out, but first I dug out a small sack of silver Mexican dollars, upon which he was also reclining.

Evidently imagining that I was endeavouring to eject him from our cabin, for (his pale, oily face streaked with cold sweat and drawn with agony) he groaned, "*Es mi dinero, señor; pero cojelo, cojelo todo*" ("It is my money, señor; but take it, take it all"), offering freely his little all to be allowed to stop where he was and rest in peace. I realised then how awful he must be feeling—for in the matter of liberality the average middle-class Yucatecan runs the moneylender a close second—and simply had not the heart to treat him as we had treated all other intruders, and eject him forthwith.

Moreover, I observed that he was vomiting over the bags of sugar, which were to be discharged that day in Cozumel; now, I considered that the owner of the boat had put one over on us badly by half filling our wretched little cabin with these same bags, so at least the Yucatecan was helping us to get some of our own back, as the sugar would certainly be refused by the consignees.

The cook was an extraordinary creature, short, stout, and stocky, with long arms and immensely powerful shoulders. He was a dull chocolate colour, with a thin, bristling moustache sticking out like a cat's whiskers above an immense chasm of a mouth. His little brown eyes were sunken and porcine, and he could speak no known language intelligibly, probably belonging to one of the savage tribes of Waika Indians of Nicaragua, about whom very little is known.

He always smelt horribly of fish, and I soon discovered the reason. Recently we had caught great numbers of baracouda, snapper, cobarli, and other fish, with a spinner. Some of these were eaten fresh, and some salted down and dried, but all underwent a preliminary treatment of being

cleaned and split open, and when I found the cook lying down on deck in the sun, upon the odoriferous spot where this procedure was carried out, and where a considerable amount of the refuse still lingered, the ancient fishy smell which hung around him, like ectoplasm, was no longer a mystery to me.

We arrived about noon at the little town of San Miguel, the port of the island of Cozumel. Though we had only ten tons of cargo, and that all coming from a port in the same country, it took us till after 6 p.m. to enter, when it was too late to make out the necessary papers, so we had to lie idle, the wretched little heap of cargo untouched, till next morning!

We wondered how long it would have taken to enter one thousand tons of cargo, and if the steamer carrying it would ever have got away again, or lain and rotted at her moorings, awaiting her papers, while her officers and crew grew old and grey, at last finding rest in the little Campo Santo, and Comandantes del Puerto and Administradores de Aduana succeeded each other and carried on the stupendous task of endeavouring to make out papers for the entry of one thousand tons of cargo!

We were not, however, the only victims of the Customs Regulations, for that evening we met, strolling on the little plaza, four unfortunate Americans who had been in Cozumel for nearly a month.

They had arrived in a little schooner, with an auxiliary engine, from Belize, whence they had cleared in ballast, taking on board a cargo of liquor—destination not for publication—on the high seas.

Unfortunately for them their engine broke down nearly opposite Cozumel, and they had to put in to repair the damage. Hardly, however, had they anchored when, as they alleged, an armed Customs boat arrived, seized them, and bore them off to San Miguel, where they had been detained ever since, permitted the freedom of the island, but sleeping on a stone floor, cooking their own food,

and in a general state of extreme discomfort ever since.

What they appeared to feel, however, most of all, was having run out of American, and being obliged to smoke Mexican, cigarettes ; indeed I don't know which they more fluently anathematised, Mexicans or their cigarettes—which burn like time fuses, and taste like punk ; and it was almost with tears of joy in their eyes that they accepted a few smokes from " God's country," which we were able to spare them.

That afternoon, having nothing to do, Joe suggested that we should stroll along the beach towards a little sandy bay which ran up into the iron-bound limestone coast, and this we proceeded to do. It was a lovely spot, with clean, hard, sandy bottom, upon which fish of all sizes, shapes, and colours could be seen darting about through the crystal water as clearly as in an aquarium.

It did not look good for a bathing-place, as a heavy swell was running, which made it dangerous to climb down the needle-like rocks, worn into a fantastic fretwork by numberless centuries of erosion, into the sandy pool beneath. We accordingly decided to investigate a little stream which ran into the head of the bay. On returning, Joe remarked with a yawn, " I wish to goodness we had something to occupy us till lunch." We had ; for, on looking down, I found my trouser-legs literally covered with small ticks, rapidly working their way up and down in search of suitable skin to burrow into.

The only thing we could do was to strip naked, and pick and brush as many as we could off socks, trousers, and drawers, and, leaving these out in the sun, to jump into the pool, notwithstanding the rocks. This we did, and found ample occupation, not only till lunch, which we completely forgot, but till well on in the afternoon, in changing our clothes from one side to the other, so that the sun got to every part of them and gradually drove off the ticks.

CHAPTER X

Start for ruins of Lubaantun—Disciplining a drunken paddler—Curious names given by Indians and mahogany-cutters to falls and creeks in Rio Grande—Huge population of birds, animals, and insects inhabiting a great *ceiba*-tree on the river-bank—Mud on the river-bank retains footprints of game, and presents an open book to the initiated—An encounter with a savage female tapir—Indian woman without false shame—A narrow escape from a falling tree—Blue heron's encounter with a hawk—An albino fresh-water turtle—Muddy meets with an accident.

We left Punta Gorda, the most southern settlement of British Honduras, for a short preliminary visit to the ruins of Lubaantun on March 27th, 1926.

I had arrived in Belize from Cozumel on the 25th, and met Lady Brown, Joyce, from the British Museum, and Hedges, who were on their way to the ruins, but, as I had to join Morley in Copan before the 8th of April, I was unable to await their start, so determined on a flying trip on my own account.

I had got the faithful Muddy with me on this occasion, and a Belize photographer, named Lizanaga, a small, thin, weedy youth, but tough and good at his work, so did not have the same uncomfortable feeling, as a snail travelling without his shell, that followed me throughout Yucatan.

Muddy had arranged for a dug-out to be ready at 6 a.m. on the 27th, and at 5.30 went out to search for the captain, whom he found still in bed, and aroused him.

At 6 a.m. we had all the baggage by the water-side, and soon after up staggered the captain, a Honduranean mestizo, or part African, part Spanish, already blind drunk, and smelling like a distillery—quick work in half an hour!

Muddy managed to hire two extra paddlers, and, with

one of the original crew, who had only arrived at the maudlin stage, we pushed off at 7.30.

After we had covered about a mile the maudlin one discovered that he had forgotten to put his bundle of clothes and food on board, and wanted to turn back ; this, however, I vetoed, and made him paddle five miles to the bar, and ten miles up the river to where a trail to Punta Gorda, not over three hours' walk away, came down to the bank.

The exercise had sobered him, and he now wanted to proceed, but as he was a far more efficient talker than paddler, and only kept the other men from sticking to their work, I put him ashore to walk back. We found that thereafter the dug-out went much better without him.

Passing Jacinto Creek, I found the *Cara*, with Joyce's party on board, taking it easy ; they had sent two dug-outs up with their outfit, and were awaiting their return, but I had to push on more rapidly.

We passed Roba Madera, or Wood Robber Creek, with a very wide, open mouth, so called because, when mahogany logs are being floated down from above on a flood, some are often washed into this creek and get stranded in the bush when the flood subsides, and so are lost.

Every one of the hundred little creeks and innumerable falls had a special name of its own given it by mahogany-cutters or Indians.

Higher up we passed a very swift run, with a small whirlpool below it, named Chicle Chupado, or Chewed Gum, because a dug-out load of chicle, or chewing-gum, had once upset in the run and got lost in the whirlpool.

We slept that night on the river-bank, and, although there were no mosquitoes, we were eaten alive by sand-flies, which managed to penetrate even the fine meshes of my net, which was supposed to be sand-fly proof, and made us only too ready to start soon after 3 a.m.

Some of the gigantic trees which grew upon the river-bank were like immense apartment houses, with all sorts of quaint and curious tenants, to whom some part of the

great tree, from topmost attic of swaying branch to lowest cellar of under-water root, was "home."

In one of these, a huge wild cotton-tree, a pretty little flycatcher had built her nest on one of the slenderest branches overhanging the river, in which lofty eyrie, swayed gently by every passing puff of wind, she could sit at peace and hatch out her eggs, knowing that she was perfectly safe from monkey, weasel, snake, or other egg-robbers, which dare not venture out on so slender a support. Her only danger threatened from the matlala, a crested lizard, and also an egg-thief, to whom a fall even of one hundred feet into the river would be no more than a 6-foot dive to Miss Kellerman.

Within the hollow trunk, which appeared from its charred interior to have, at some time, been lightning-struck, a colony of tiny bats had taken up their quarters, the cool, dark interior forming an ideal home for them during the day; from here they sallied forth every evening, as dusk fell, for a raid on the night-flying beetles and moths. They popped out like soldiers in line, apparently at some pre-arranged signal, and, curiously enough, if one tapped the trunk smartly during the day-time, out they shot, keeping the same regular alignment, as if they had been awaiting this cue to appear on the sunlit stage.

Securely hidden in the middle of the foliage was the nest of a pair of tick-birds, who must have been regarded as rather a nuisance by their neighbours, for they kept up an incessant quarrelling and chattering all the time, though perhaps this was only their method of making love.

The cock bird sat on one of the branches and assumed the most ridiculous attitudes, opening his beak as if in the act of yawning, turning his head affectedly from side to side, doing a sort of *pas seul*, and every now and then flying off to an adjacent tree, as if bound on highly important business, repeating the performance there, and then flying back again. But woe to the egg-thief who attempts a raid on the tick-bird's nest! He is apt to meet a warm reception,

for the defender is armed with a long, sharp, powerful beak of tremendous driving-power, absolute fearlessness, and an incredible activity—a combination calculated to drive off any ordinary lizard, snake, or small mammal in disgust, while the booty is so inconsiderable that it would hardly tempt to climb any of the large lizards or constrictor snakes, armed with *force majeure*.

In the clay bank, by the side of one of the roots near the river surface, between wind and water as it were, was a narrow passage leading to a comfortable, little adobe chamber in which a gorgeously coloured, tiny kingfisher had built her nest. It was by no means a clean or sanitary dwelling, and the smell of dried fish and other things was only too apparent, but, like the flycatcher's nest, it was practically immune from attack, for no land enemy was likely to reach such an inaccessible spot as the almost perpendicular surface of the clay bank just before it entered the water, and no enemy that I know of, arriving by the river route, was capable of entering the narrow passage leading to the nest.

It was a pretty sight to watch a prismatic flash of red, blue, and green come hurtling down the river at frequent intervals and pop into the front door, like a cork into a bottle. Father kingfisher had arrived, usually bearing a small fish in his beak for a family meal.

The wild cotton-tree had many other than feathered tenants, however, and in the lowermost basements, beneath the roots, one on the landward, the other on the water side, lived two gentlemen of exceedingly quiet and retiring habits, who regarded publicity with the utmost abhorrence.

The first of these was Halib, the gibnut, who, notwithstanding his Mexican alias of *tepisquintli*, was still pure Maya. He reminded one of a huge, fat, sleek rat, a couple of feet in length, and covered with long brown hair. He had dug himself a comfortable burrow beneath the great roots of the tree, on the landward side, so excavated that the opening was concealed most effectively from the

casual glance of any passing human, and, once safe in his quarters, he feared practically no other enemy, though in the open he had to keep a sharp look-out for puma, jaguar, tiger-cat, or perhaps, worst of all, that "silent death," whose approach is not detected till one is within the jaws —the woula, or Central American constrictor.

Halib was a harmless, fussy old fellow, quite unlike his cousin, the rat, for he was clean both in person and diet, and, being a strict vegetarian, did harm to none. Yet one morning at dawn, just as he was about to sally forth for the day's adventures, poor Halib's fate overtook him. An Indian hunter, sneaking through the bush, trailing his old muzzle-loader, a cur at his heels, passed within a few yards of our tree, and was at once attracted by the shrill yelps of the cur, who was scratching away furiously with his forepaws at Halib's front door.

The owner lay snugly inside, smiling at the futility of such an attack, disdaining even to use his bolt hole, some ten yards away, by which he might still easily have escaped to safety in the dense forest.

Suddenly the dog was snatched away from the hole, and a faint whiff of a new and terrifying scent reached his nostrils; for the first—and last—time, he had met MAN. Thoroughly scared, he turned and bolted for the back door. But what was this? Stretched over it was a fine-meshed net, rendering exit impossible, and then there began to steal in to the poor frantic prisoner a horrid, new smell of smoking punk, to which was soon added the choking fumes of burning green pepper-bush.

And now the terrible alternative stared him in the face of either dying choked at the bottom of his burrow or making a last rush for freedom through the dense cloud of poison gas and awful crackling flames beyond.

But he was a plucky little fellow, who had before now come out of many a tight place, and, gathering his powerful hind legs beneath him, he made one desperate spring which carried him almost over the fire, with no worse injury than

a singeing of the long hairs of his hind quarters, and then, his heart bounding with joy, made straight for the bush; but it was not to be, for hardly had he cleared five yards when the old muzzle-loader spoke—one horrible pang in his chest, and poor Halib rolled head over heels, and, with a few spasmodic twitches, lay still for ever.

The second dweller in the sub-cellar beneath the roots of our tree was Pek-ha, the water-dog, or otter, a long, lean, vicious-looking, grey beast, somewhat larger than Halib, from whom, though they had never met, his underground apartment was separated by not more than ten feet of earth.

But Pek-ha, unless he were caught in the open, had no enemies to fear, for the front door of his home was beneath the water, and opened into a passage which led to a comfortable den scooped beneath the great roots of the tree. He was a great fisherman, and, as the stream swarmed with baca and machaca, life was easy and food plentiful, so that he soon became fat and portly, and, knowing no enemies, for he was useless to the few Indians who navigated the stream in their dug-outs, he became careless, and, like all the inhabitants of the wild, paid dearly for it.

One morning, lying on a half-submerged stump, gorged with fish, he suddenly became conscious, through that extra sense possessed by all wild animals with whom eternal watchfulness is the price of life, of some approaching danger, and, as a whiff of musty fœtor was wafted to his sensitive nose by some errant zephyr, hastened to dive to safety, but by a fraction of a second too late, for just as he slipped from the log an agonising grip closed upon his loins, and he was in the terrible jaws of Lagarto, the alligator, which never relaxes its hold, and on his way to the bottom of the stream.

Poor Pek-ha turned and bit savagely at the armoured head and neck, but, for all the damage he did, might as well have bitten at a rock, and then in the gloomy, mud-obscured depths, splendid diver though he was, his lungs at last gave out, and many thousands of fish were avenged.

The insect population of our wild cotton was practically legion. The black, football-like objects hanging from the upper branches were the dwellings of myriads of white ants, and the beautiful, delicate, little paper-like balloons lower down the laboriously built homes of paper wasps, while an unending stream of black tree-ants, whose bite is like a pair of tiny red-hot pincers, constantly marched up and down the trunk and limbs on business of their own connected with the hundreds of air plants and orchids, the perfume of whose blossoms scented the air around, and attracted swarms of bees, butterflies, and beetles.

The river-bank in places was composed of yellowish mud, soft near the water, and harder higher up the bank. This was an open book, in which the initiated might read the movements of game which had come down to the water-side to drink, to cross over, or to hunt, for it took the imprint of their tracks like newly fallen snow, and retained them till the rainy season or a flood obliterated them.

Here a lumbering tapir, or mountain cow, had come down to drink, and been precipitated into the river by a small mud slide ; he had not come to cross over, as the place where he had scrambled out again was clearly visible.

My experience of the tapir farther north has always been that he is a harmless, inoffensive, retiring animal, always seeking the deepest bush and the darkest places, but a tale told me by a local planter of his experience with one of these animals, not far from the Rio Grande, seems to show it in a somewhat different light.

My friend had been out hunting, with two dogs, one of them a mere puppy. Riding home, they debouched suddenly into a patch of swampy ground, covered with long stiff grass, and surrounded by high bush, in the middle of which they came on a large mountain cow with her calf. Driving the calf in front of her, the mother turned immediately and made for the bush at a lumbering trot, but, soon realising that she was no match for a horse, signalled to the

little one in some way that it was to go on alone, for it scuttled off for the bush as fast as it could go, while she turned at bay.

The dog was yapping at her hind legs, and rushing in every now and then for a snap, so she turned on him, and, elevating her little trunk, opened her mouth wide and rushed straight at him. The dog, with a howl of terror, turned and fled, and small blame to him, for his sensations must have been about the same as those of a wolf on whom a sheep has turned.

In the meantime the hunter had dismounted, got what he thought was a good line on the animal, fired, and missed with his only cartridge.

The noise seemed to infuriate the tapir further, and leaving the dog, she rushed at a heavy awkward gallop, which yet covered the ground at a tremendous rate, straight at the man, head and trunk up, mouth wide open, and evidently mad with rage.

He, now thoroughly realising his danger, started off for the nearest tree as fast as his legs could carry him, but his way was greatly impeded by the long grass, which made hardly any difference to his pursuer, with the result that she covered two yards to his one.

With less than six feet between them, he reached the nearest tree, made a desperate leap, and just managed to grasp one of its branches and pull his legs up out of the way as the tapir rushed beneath. But now, instead of disappearing into the bush, as one would have expected, she turned and deliberately tried to grab his rear with her teeth, stretching her neck and reaching up for the purpose, but just failing. Then she did what seemed to me almost incredible. She deliberately put herself in the position of a dog begging, immediately beneath the unfortunate man, and was proceeding to raise herself on her hind legs, in which position she would, of course, have easily been able to reach him, when a most fortunate diversion was caused by the appearance of the puppy, which had taken no part

in the proceedings up to now, rushing out of the bush behind the tapir and snapping at her hind quarters.

Either this was too much for the animal or she felt her calf had now reached safety; at any rate, she bolted incontinently into the dense forest, and was seen no more, leaving the hunter to descend and wonder at the freak of nature which could turn such a harmless animal into such a fury in defence of her young.

Farther up the river were two tremendously deep imprints of the paws of a good-sized tiger, in the soft mud near the edge of the water, but no signs higher up, and these completely puzzled me, till one of the Indians smilingly pointed to a large flat rock, 5 or 6 ft. from the bank, from which the tiger had obviously jumped, leaving two heavy slots where he landed in the soft mud close to the water, but none higher up on the harder mud.

Tracks of deer, antelope, wild hog, gibnut, and armadillo were visible everywhere, some weeks old, some made only that day.

A track that utterly perplexed me was a faint linear depression in the soft mud, until the Indian explained that it had been made by a woula slithering down the bank to cross the river.

It may have been merely coincidence, but on two occasions these tracks were almost on top of the claw-marks left by gibnuts—large fat rodents, very good eating—also crossing the river, apparently in considerable haste, and though I have never heard of snakes hunting in this way, I think it quite possible the woulas may have actually been following the gibnuts, which, as a last resort and very imprudently—for the woula is as much at home in the water as on land—took to the water, in hopes of making their escape.

Just below the main fall we put into a little Indian settlement to get limes. Standing on a large, flat rock was a young Indian woman, not at all bad-looking, and stark naked. She was alternately soaping herself all over and pouring water over her head from a small calabash.

She coolly answered our *buenas dias*, and thereafter took not the slightest notice of us, not even using her magnificent black hair, which reached to her knees, as a frontal shield.

I did not like to suggest a photograph to the lady, though she would have made a splendid subject, so we paddled on.

Hardly had we passed this point when we heard a tremendous rending crash behind us, and, looking round, were just in time to see an immense wild fig-tree fall across the stream, bridging it from bank to bank where we had passed hardly a minute before.

I have never heard of a dug-out being hit by a falling tree, but the occupants would have rather a poor chance of escape if such an accident should occur, and trees, their roots undermined by the water, are constantly falling into the stream, as the long succession of trunks, in all stages of decay, blocking up the fairway, attests.

Just above the falls, over which, being very lightly loaded, we had little difficulty in hauling the dug-out, we passed the mouth of a small stream known as Agua Caliente, from the fact that higher up a hot spring opens into it, raising the stream's temperature, though by the time it reaches the main river it has cooled down almost to normal.

Near the mouth of this creek we passed some laburnum-like trees growing on the river-bank; showers of the beautiful blossoms had fallen on the surface of the water, here running very sluggishly, and, with the sun's rays falling upon them, turned the stream into a veritable river of gold.

Later in the afternoon we came upon a small blue heron fishing by the river-side; at our approach he would take wing and fly a few hundred yards up the stream, hoping each time to be left in peace at his job. He, very foolishly, repeated this manœuvre some half-dozen times, instead of flying round us, over the bush, and so letting us pass him. Each time he let us get closer before getting up, and the last time we were within ten yards of him before he rose and flopped leisurely up the river. Hardly had he given a dozen wing-flaps when a small hawk, which had been

perched on a Santa Maria branch close to the river margin, apparently waiting such a heaven-sent opportunity, followed him like an arrow, struck from behind, and had his talons fixed at the base of the long snake-like neck before the heron realised what had happened. He uttered one squalling shriek of fright and agony, then turned his long bayonet-like bill to try and get a stroke at his assailant, when, carried on by their own momentum, they both disappeared behind a clump of cohune-palms, and, greatly to our disappointment, we never saw the end of the little drama.

I was sorry for the poor heron, as we were in a measure contributory to his misfortune, but eternal vigilance is the price paid for life by every creature of the wild, and, had he not kept one eye on his fishing and the other on our approaching dug-out, he would undoubtedly have had time to avoid his feathered enemy.

After all, the hawk was only avenging the small machacas which the heron had been catching along the river-shore, and they in turn had been devouring tiny fry swimming near the surface, with bladders attached to their bellies, which fed on some microscopic organism floating on the surface; and so, no doubt, *ad infinitum*, till we arrived at ultra-microscopic forms of life.

Had I been a hungry Indian with a gun, I should probably have shot the hawk, and eaten both birds, to be devoured in my turn by larvæ, who again might have fallen victims to fish, who in their turn would have provided an Indian meal, and so the cycle of life and death goes on through all time, every living creature devouring and being devoured, but in what inconceivably insignificant link the chain of voracity may start who shall say? Possibly in some creature so minute that in comparison to it the almost ultra-microscopic organism of yellow fever would appear a veritable whale.

We had a curious accident just before arriving; the dug-out passed right over a great log, submerged about three feet

beneath the surface of the river, seated upon which was a magnificent specimen of the rare white hicatee, or river turtle, nearly two feet in length.

We got an excellent view of him, as the water was clear as crystal, and he never moved as we passed over his head. He was a creamy white, with black markings on the shell, and must I think have been partly an albino. We were all so greatly interested in the reptile that no one was keeping a look-out, and all of us were hanging on to our paddles, when suddenly the bow of the dug-out ran straight into a great snag sticking up two feet from the water, bringing her up all standing.

We all got a nasty jar, but the unfortunate Muddy, who was perched insecurely on the narrow little steersman's seat at the extreme end of the pointed stern of the cranky craft, gazing entranced into the depths, suddenly turned a half-somersault and disappeared head—or rather hat—first, into the river. We were anxious for a moment, till he popped up, swearing vigorously, and, after retrieving his hat, swam towards the dug-out.

CHAPTER XI

Arrive at San Pedro, and put up at the Cabildo—Village gossip—Death of Chico Choc, the man of the extraordinary dream—Rapid growth of bush over ruins we had cleared the previous year—Death from infection by beef-worms—Miserable lot of the Kekchi Indians—A village tragedy and double killing—I lose the key to dated monoliths by the execution of the murderer—The monkey dance not permitted by the Roman Catholic priests—An under-water swim after an iguana—Missing a jaguar—A river-otter nearly proves our undoing—Arrival at Punta Gorda—Lucky escape from a thunderstorm.

On arriving at San Pedro we put up at the Cabildo, or Alcalde's Court House, the most comfortable bush shack in the place, the only drawback to which was that when one occupied it the Indians looked upon one as some sort of Government official, and turned up in force with complaints and requests on every conceivable subject, from hook-worm treatment to land tax.

The first evening was devoted to hearing the gossip of the place since I had left there the previous year ; who was dead, who was married, what husbands had left their wives, and wives their lords, and why ; indeed, it seemed that hardly a family in the village had been without some sort of excitement, from a death to an elopement.

I regretted exceedingly to hear that our old friend Chico Choc was dead. It was he who, at our first visit to the ruins of Lubaantun, had told Hedges and myself the extraordinary story of an adventure which had befallen his father some years previously.

It appeared that the old man, whose corn plantation was in the neighbourhood, had succumbed one evening to the effects of a bottle of rum and gone to sleep in the arena, a place in which no inducement on earth would, under

ordinary circumstances, have prevailed on him to spend the night.

To him, in his drunken slumber, came an extraordinarily vivid dream, in which he saw the ancient city as it appeared at the height of its glory—the citadel shining like a porcelain island in the rays of the tropic sun, great, painted, wooden temples standing on top of the stone-faced pyramids, up the terraces of which passed processions of priests, musicians, and worshippers.

Then suddenly all this faded from his vision, and he found himself in a dimly-lit cave, along the sides of which were cut stone recesses, within which rested the images of the gods worshipped in the ancient city—Cuculcan, the Plumed Serpent, Tlaloc, the god of rain, the Bacabs, the Ikob, or wind gods, and many others, with their grotesque, half-animal, half-human faces and elaborate costumes and ornaments.

These left a clear mental picture, which even when he woke next morning with a headache and an attack of goma—gum ; an expressive, if vulgar, term for the mouth of the morning after the night before—was quite strong and vivid.

A few days later, while felling the virgin bush on the hillside for his corn plantation, he stumbled on the entrance to a small cave, almost concealed by creepers and lianas, on entering which he was horrified to discover, resting upon stone shelves, the clay images of the very gods which he had seen in his dream at the ruins only a short while before, whose faces were indelibly impressed on his memory.

For several days he hesitated what to do, but ultimately removed the images to his own home. This, however, proved to be but the beginning of his troubles, for he was visited on several occasions by dreams in which he seemed to be threatened by the most horrible consequences if he destroyed the images or removed them to Punta Gorda, a course recommended by the priest whom he consulted on the matter.

Having now thoroughly "got the wind up," and being

afraid, whatever he did, of offending either the new or the old gods, he hit upon a middle course, buried all the images beneath the floor of his house, promptly deserted the place, and settled with his whole family in a distant village.

He confided the secret of the hiding-place only to his eldest son, old Chico Choc, who told us the tale, and promised, for a suitable reward, to be paid only on discovery of the images, to lead us to the place.

I had hoped to test the old man's veracity this year, as I was sure that, up to a certain point, his tale was true, for it is no uncommon thing to discover images in clay of the gods worshipped by the former inhabitants, hidden away in caves and secret places in the bush, just as they were left by their owners, who had been compelled to retire to the remotest fastnesses of the forest in order to worship their old gods in peace, for which offence they were heavily punished by the priests, especially if they reverted to idolatry after baptism.

His father's dream, I must admit, I accepted as a neat little frill to the prosaic fact of his having found these images himself in some cave or *chultun*. But now the poor old man had gone to join his fathers, confiding his secret, if secret he indeed possessed, to no one, and I fear me that the images of the gods are lost for ever.

I may say that we heard later from the widow of Chico Choc that the tale he told us was substantially true, or that, at any rate, he believed it himself. The only point on which he had not stuck literally to the truth was the somewhat important one of the situation of the ruins where the adventure had occurred to his father. It was not at Lubaantun, but at Pusilhā, ruins of the same character, situated just over the Guatemala border, where the family then lived. What his object could have been in deceiving us on this point I cannot imagine, and shall now never know.

I spent a couple of days at San Pedro, visiting the ruins of Lubaantun on several occasions. The entire ruins were covered with bush from 6 to 12 ft. high, although it

was only ten months since we left them clean as a billiard table, which will give one some idea of the extraordinarily rapid growth of vegetation in Central America during the rainy season. Fortunately this bush was very light, and could all be felled within a week, and dried and burnt in less than three weeks.

I saw a good many patients, for, as usual, nearly half the population seemed to be sick ; malaria, enlarged spleen, granos (or ulcers), anæmia, hook-worm, and rheumatism all tend to make life a not very enjoyable experience for these poor Indians from the cradle to the grave, with death as the goal, which they nearly all regard without fear or repulsion, for, if not the gate of life, it was at least to them the gate of freedom.

I had often seen the sores left by *colmoyote*, or beef-worm, a large, white fat worm, covered with stiff hairs, which, burrowing into the skin when it is small and slender, develops into a horrible creature over an inch long, projecting at intervals its ugly head through a hole in the skin by means of which it breathes, and wriggling restlessly all the time.

Usually one spotted these abominations at once, and by means of a plug of wet tobacco placed over their hole, combined with a judicious lateral pressure, persuaded them to evacuate their quarters when yet quite small.

On this occasion, however, I was called in to see a poor old Indian who had got four of these brutes in his back, and either from the insensibility of old age, or the indifference to bodily pain and inconvenience induced by a life-long experience of both, had allowed the worms to reach their full development.

When I saw him he had four great holes in his back, each large enough to hold a small egg, and, though I did what I could for him, I fear his chances of recovery were not very rosy.

These poor Kekchi Indians, suffering under almost every disability which life can bring in its train, often made me

ashamed of my own grouchiness and bad temper at the food, the climate, the stupidity of servants, and the million and one insect pests, from some of which one was never free; for they were invariably smiling, polite, and good-tempered, accepting all their troubles and afflictions in an admirably philosophic spirit.

Tragedies, too, were not lacking even in this small, backwoods settlement, as the following events, which occurred in the very Cabildo in which I am now writing, will show.

Two Mexican chicleros, Juan and José, who had been bleeding chicle in the neighbouring forest, came in to San Pedro for a little relaxation after their arduous life in the bush, and recognising but one method of obtaining this, at once proceeded to get gloriously drunk.

Juan sensibly sought the nearest shade, and lay down to sleep off the effects, but José started on a tour of the village, flourishing his revolver, challenging everyone he met to mortal combat, and making himself generally objectionable, till he was promptly secured by the Alcalde and his native constables and haled off to the *calabozo*, a small room opening off the Cabildo, where he was tied to a beam to sober up.

José's wife, who had watched these proceedings, at once rushed off to the sleeping Juan, whom she shook awake, shouting in his ear, "*Ven, hombre, estan matando su compadre*" ("Come, man, they are killing your friend"). Juan, still only half sober, and in a savage temper at being aroused before he had had time to sleep off the effects of the liquor, got up, and followed the woman to the Cabildo, where he was just in time to see the Alcalde and constables finish tying up his friend.

"Loose that man immediately," he shouted.

"No," said the Alcalde, "he has been misbehaving himself, and only receives the punishment due to him."

Without another word Juan drew his revolver and fired into the crowd, fortunately hitting no one. On this, all

the Indians rushed for the door, and at once made for the nearest bush.

Juan, who was standing at an opposite door, revolver in hand, turned furiously, and, as ill luck would have it, catching sight of one of them bolting around the corner of the house, fired a flying shot at him, which unfortunately took effect in his side. The Indians closed in on Juan, and soon had him tied up beside José. Juan and the wounded Indian were immediately loaded in a dug-out, and started for Punta Gorda, but the man died in agony on the way down, while Juan was tried in Belize, and paid the penalty for his spree on the scaffold.

Perhaps one of the most unfortunate circumstances connected with this little tragedy was that Juan, who was well known to me, had worked for years as a chiclero in this trackless bush, of which he had perhaps a more intimate knowledge than any man alive, and had discovered hidden somewhere in the depths of the forest what he described as "three large stones, bigger than a man, standing on end, with drawings on them"—undoubtedly stelæ, and very possibly dated. He had promised to take me, on my return to the colony, to the place where the stones stood, but I came back only to find him an inmate of the condemned cell. The sole other person who knew of the location of these stones was Mr. H. Kevlin, Juan's employer, who unfortunately died at Punta Gorda of black-water fever before I could even get a chance of interviewing him.

There seemed indeed to have been a fatality attached to the dating of the ruins in this district, as, needless to say, these stelæ were never again found, and deliberately to set out to look for them in the sea of virgin forest would be even more hopeless than searching for the proverbial needle.

I managed to get a photograph of the masks belonging to the monkey dance. I had never been able to get even a sight of these objects before, as the owner, a secretive old

Indian, who lived in a shack at some distance from the village would never allow anyone—not even his fellow-Indians—near them, and it was only on payment of two dollars—a very considerable sum in San Pedro—that I obtained permission.

They were very disappointing, consisting of thirteen small, black, and red wooden masks of monkeys' faces, with one a good deal larger, provided with a beard and three horns, to represent the devil.

It was many years since the monkey dance had been performed openly in San Pedro, as, being a relic of former idolatry, it was strictly forbidden by the Roman Catholic priests, and the Indians found it greatly to their advantage to be on good terms with the Church.

The merest skeleton of the original tradition pertaining to the origin of the dance was now left, which was as follows. It would seem that the monkeys and their father the devil had at one time a very considerable influence in the affairs of men, and were especially powerful in assisting or retarding the growth of corn, and the rainfall at the time when rain was most needed by the plantations.

For this reason the monkey dance was held at the time of the planting of the *milpas*, as a propitiation to the devil and his monkey brood in order to ensure adequate rains at the proper time, and a good crop.

During the dance, offerings of corn, beans, tobacco, chile, and other fruits of the earth were placed before each of the individuals wearing the masks.

Now, however, since the introduction of Christianity, a small fan, with the picture of a *Santo* inset, was waved in front of the masked individuals, representing the devil and his children, upon which they promptly turned tail, and ran howling away, which seemed to have been rather an ingenious method of turning an ancient dance, connected with devil worship, to Christian uses ; it has, however, been forbidden by the Church, as likely to keep alive old heathen traditions.

We made an early start from San Pedro in a dug-out with four good paddlers, hoping to reach Punta Gorda that night. Just below the village the bow paddler, who had his old single-barrel section of gas-pipe loaded beside him, suddenly grabbed it up, and let fly at something I could not see on a branch overhanging the river. Immediately after the shot there dropped from the tree into the water a squirming iguana—a large, edible lizard—wounded, but evidently not killed.

He dived to the bottom, but the bowman was after him, swift as an arrow from the bow, and then we had an excellent view of as pretty a chase as one could wish to see, for the water was clear as crystal and the river bed of hard sand.

The iguana was making off along the bottom, his objective being a great log, while the Indian swimming along after him, but making rather better time than the wounded lizard, was gradually overhauling him. For a few seconds it was anybody's race, then, just as the man had stretched out his hand to grasp the reptile's long, slim tail, the latter reached the log, and was under it in safety.

I asked the boy why he had wet his clothes, matches, and tobacco, for he had not time to get rid of anything before diving in. "*Pues, señor,*" he said, "*tenia huevos*" ("Well, sir, she had eggs"), as if this were more than ample reason for lizard eggs are considered a great delicacy.

A mile or two farther on we came to a great tree fallen across the river, and there was a howl of "*Tigre, tigre!*" ("Tiger, tiger!") from the steersman. I looked up just in time to see a small jaguar, which had evidently been crossing the river on this natural bridge, make one frantic bound into the bush. The bowman had unfortunately been asleep at the switch, and had not caught sight of the tiger in time, only snatching up the old single barrel just too late. A good shot could hardly have failed to prove fatal, for the beast was a small one, we were not thirty yards away, and the gun was loaded with small bullets.

Even yet, little alarms, which are so welcome as a break

in the monotony of a long day in a dug-out, were not over, for, rounding a bend just above the falls, a large otter, going "hell for leather" up the stream, just turned in time to avoid us by diving under a great log, lying partly across the river, and after him followed a charge of shot, striking the water not six feet from where I sat in the dug-out.

Rounding the bend, we came upon the culprit responsible for this outrage, an old Indian, standing in a tiny canoe, holding his still smoking gun in his hand, an ingratiating smile upon his wrinkled brown face. We lectured him severely on the danger of shooting blind, as he had done, at a bend in the river, for he never knew what might be coming round it; but I fear without much effect, as we never succeeded, even temporarily, in erasing the smile.

We arrived at Punta Gorda at nine that night, after fifteen hours' consecutive paddling, no mean feat, when one takes into consideration the terrific heat of the sun in the open river from 10 a.m. to 4 p.m.

Just after we arrived a great thunderstorm, which had been threatening all day, broke with extraordinary violence, and we congratulated ourselves on a lucky escape, for had we been an hour later we should either have been caught on the open sea or obliged to camp in the mangrove swamp at the bar, amidst myriads of mosquitoes, in the deluge of rain.

CHAPTER XII

Start for Copan—Held up in Zacapa—Good Friday celebrations—Shocking conditions in the church—Impossibility of hiring muleteers—Effigy of Judas Iscariot thrown from the church tower—Indians still cling to their old religion—A curious market—Hill Maya women compare unfavourably with northern Maya women—We make a start from Zacapa—A desert country and a bad trail—Abject poverty of the hill Indians—Youthful cigar-smokers—Perpendicular plantations—An extraordinary method of communal fishing—Reminds one of communal fishing, hunting, and agriculture amongst the ancient Maya—Burial of the dead near trails, in order that their ghosts may never lack company, and so never return to their relatives—Reasons for deliberately choosing a hilly, rocky road—Indians near frontier do not know of which Republic they are citizens—Poor mules and *arrieros*—Arrival in Copan.

We left Punta Gorda on the morning of April 1st, arriving in Puerto Barrios, the Atlantic port of Guatemala, that afternoon.

We spent a sleepless night at the hotel, where the noise was continuous and terrific, and started next morning for Zacapa, our jumping-off point for Copan.

Half the inhabitants of the town, one of the largest in Guatemala, were drunk in celebration of Good Friday, and nobody would listen to our proposal to hire seven mules to convey ourselves and baggage to Copan the next day.

Good Friday had been inaugurated by the slaughter of an unfortunate man, whose corpse was found early in the morning lying by the river-side, chopped up in a ghastly manner with machetes—robbery, apparently, being the only motive, and the amount of loot obtained being five Guatemalan *pesos*, or eightpence! Nobody seemed to think much of the occurrence, and the possibility of finding the murderers was regarded as exceedingly remote.

I was informed that the local priest had departed for Puerto Barrios some time before to see his family off for the States, but, on arriving at the port, had made up his mind to accompany them, and so when we arrived there was no priest in the place, and the inside of the church presented a most extraordinary spectacle. Some women were praying, and others singing, while a number of men were talking, smoking, and spitting, and a gang of youths were playing a game, something like dice, with the round, tin stoppers of mineral-water bottles, in which the betting was brisk and quarrels incessant ; indeed, it reminded one of nothing so much as the Temple when Christ visited it, with the bitter remark, " My house is the house of prayer, but ye have made it a den of thieves."

Muddy sent three trustworthy men round to do the best they could in obtaining seven mules for the next day, promising to return in the morning and ascertain the result of their mission.

Next morning one of our emissaries turned up to say that he had secured the seven mules, but to get an *arriero*, or muleteer, was simply impossible on Sabado de Gloria, the greatest feast in the year, during which no one would move from the town for love or money. So we were compelled, perforce, to wait till Sunday morning, when the *fiesta* would be over.

On Good Friday the image of Christ was carried in procession from the church to the Calvario, an adobe sanctuary a few blocks away, escorted by guards dressed in black, and armed with long lances. There it remained all night, and was carried back to the church on Saturday morning.

The Calvario was surrounded by gaily lit *tamasukas*, or stalls, selling *agua ardiente, pollo relleno*, or stuffed chicken, *escabeche, tortillas, frijoles*, and other native delicacies ; dancing and drinking were kept up all night—in fact, the lid was right off, and the whole affair more resembled a Roman Saturnalia than the saddest celebration of the Christian calendar.

Later, the life-sized effigy of Judas Iscariot, which resembled a particularly disreputable scarecrow more than anything else, was executed by being hurled from the church tower to the pavement below, amidst the cheers of hundreds of onlookers who had assembled to view the spectacle.

Most of the trains belonging to the Ferrocarril Internacional de Central America also bore life-sized effigies of Judas, but how he was executed, whether by being thrown over a bridge into the river or run over by a train, I did not ascertain.

One can hardly be surprised that, constantly coming in contact with such religious travesties, the Indians in many cases still clung to the worship of their ancient gods, after four centuries' experience of Christianity: first under the cruel intolerance of the first missionaries, and the tender mercies of the Inquisition, next, under the heavy yoke of Spanish Colonial administration, and lastly, under the blatant modern rationalism, so prevalent throughout Mexico and Central America, which ridicules and makes a mock of the religious beliefs of all sects and denominations that teach any doctrine more uplifting than a base materialism.

On the following day Dr. Sylvanus Morley, of the Carnegie Institution, in charge of the expedition, arrived at Zacapa, accompanied by the archæological artist, Joseph Linden Smith, who was travelling with us to Copan in order to make actual-sized paintings of some of the monuments.

John Lindsay, of the Department of Terrestrial Magnetism, who had come up specially from Guayaquil for the work, should also have been with them, but had to remain behind in Guatemala till the post office, which had been closed during the whole of Holy Week, was opened, as some of his instruments, which had been sent on from Washington, were stranded there, and no inducement on earth would persuade the officials to part with them till the post office was officially opened on Easter Monday.

We all three made a trip round the town, interviewing

owners of mule teams, but the best we could obtain was a promise of four riding-mules, four pack-mules, and two *arrieros*, for a start at 4 a.m., in two days' time.

It was arranged that I should leave Lizanaga, my photographer, behind to await the coming of Lindsay with his assistant on Monday evening, and that all of them should start immediately after dinner, with two pack-mules and an *arriero*, ride all night, and endeavour to overtake us before we reached Copan.

Having nothing to do on Sunday morning, we visited the market, held in a small open plaza, or square, where, apparently having exhausted their religious zeal during the rest of the week, most of the inhabitants of the town seemed to be congregated.

The scene was an extremely picturesque and lively one ; nearly all the stall-holders were women, a stolid, hard-bitten crowd, much darker than the northern Maya—some actually approaching the negro in colour ; the faces of even the younger ones were lined and coarsened with hard work in the open fields ; they possessed prominent, prognathous jaws, magnificent teeth, rather flat noses, and hard eyes, which refused to give me anything but an oblique glance, and that none too friendly.

Those were obviously women of another branch of the Maya stock ; for in Yucatan they are soft-spoken, gentle, pretty, with a grace of carriage and a charm of manner all their own.

They were dressed in brightly coloured cotton garments, each squatting in front of her own little collection of goods for sale, laid out sometimes on a piece of native cotton, or grass mat, sometimes on the bare ground. All were busy chaffering and chattering amongst themselves in the innumerable Indian dialects of the Republic. A most extraordinary and varied collection of objects was exposed for sale : sticks of pitch-pine for making torches, dried leaf for making grass mats and hats, blocks of native cacao, dried bark—used as string—beans, coffee, plantains, limes,

oranges, eggs, favourite herbs used by the Indians medicinally; in fact, almost every conceivable article in use among the poorer classes.

There were hundreds of these small merchants, though probably not a single one had two gold dollars' worth of goods on exhibition, and most of them did not reach one dollar, but then the Guatemala *peso* passes at sixty to the gold dollar, and the amounts sounded quite formidable when reckoned in native currency.

We bought excellent straw hats at 25 *pesos* each, or about 40 cents, really artistic, woven leaf mats, 6 ft. by 3 ft., at the same price, while for 2 *pesos*, or 3 cents, quite a good meal, consisting of beans, corn-cake, and a calabash of cocoa, native-grown and ground, could be purchased. The Republic indeed has many drawbacks, but the "H.C.L." is not to be counted amongst them.

On the appointed morning we succeeded at last in making a start, at 4 a.m., with four cargo-mules, two *arrieros* on foot, Morley, Linden Smith, Muddy, and myself. The road, a narrow mule-track, all up and down hill, floored with volcanic ash, pebbles, and great water-worn boulders, led through a desert country strongly reminding me of the bad lands of Arizona and New Mexico.

The flora also was that of the desert: cactus, armed with every conceivable kind of thorn, was everywhere, but the great organ-pipe variety, rising to a height of 30 ft., out-topped them all.

A section sliced off this and stuck into the ground will take root anywhere, and suck sustenance from the dry, volcanic ash, where any other plant would die at once. On this account it was frequently used by the natives to make fences around their arid, stony little fields, which did not appear to be worth fencing, even in this inexpensive manner.

The few patches of grass one saw were brown and dust-covered, and looked as if no amount of rain would revive them, yet the gaunt mules and cattle seemed to be able to

MEMBERS OF THE EXPEDITION—"MUDDY," LINDSAY'S ASSISTANT, GANN, MORLEY, SMITH, LINDSAY

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obtain a certain amount of nourishment from them, and I have seen a mule grazing on grass so short, so sparse, and so dusty, that even a sheep, which is reckoned a close cropper, would turn away from it in despair.

The heat was terrific, and our mouths and nostrils soon got clogged with the fine, impalpable ash, so that we had to have constant recourse to the bottles of cold tea carried in our saddle bags, to keep our tongues from sticking to the roofs of our mouths.

We passed a few tiny Indian villages, the houses built of mud, and thatched with grass. They were the filthiest people we had yet encountered, and it seemed impossible that they could belong to a branch of the same stock as the Maya of Yucatan.

They kept a few half-starved pigs, and a fowl or two. The only crop they raised was an exceedingly small variety of corn, which the northern Maya would not have taken the trouble to cultivate, and on this they and their wretched stock managed to eke out a precarious existence.

The barren, almost perpendicular hillsides, showing far more loose stones than earth on the surface, were cultivated wherever they would raise a blade of grass or a cob of corn, and the few lean cattle they carried leapt from rock to rock with the agility of chamois or mountain sheep.

Everyone, however, raised a small tobacco crop, and most of them seemed to exist chiefly on strong, home-grown, home-made cigars.

One little chap, about twelve years old, practically naked, followed us for a couple of miles, from 6 till nearly 7, smoking all the way a huge cigar, which would have made me sick after about two whiffs, on an empty stomach. It did not appear to disagree with him, however, and when I asked him how many he smoked a day, he answered, "As many as I can get, señor"; and to my warning that smoking would stunt his growth, returned, with a smile, the Spanish equivalent of "Who're you gettin' at?"

At mid-day we struck the Copan river at a place called

Los Mangos, a delightful little green oasis in the scorching desert, covered with magnificent mango-trees, from which it derives its name. Here we halted for a couple of hours, boiled water from the river for tea, and dozed under the grateful shade of the mango-trees.

With great reluctance, about 2 p.m. we started on the narrow trail which led along the sides of the mountains, where a false step on the part of the mule would have precipitated one a couple of hundred feet on to the rocks beneath.

The mountains bounding the opposite side of the valley were almost perpendicular, yet we passed numbers of tiny settlements of mud and reed shacks, clinging to the surface of the rock like limpets, and surrounded by little cultivated patches.

I wondered how on earth these people got their water, as it would have been impossible for them to have traversed the perpendicular quarter of a mile to the river every time they wanted some, but one of the *arrieros* informed me that these small villages were only built where a spring existed on the mountain-side, round which they clustered.

These Indians had the hardest existence of any branch of the Maya with which I had ever come in contact. They had no luxuries and no amusements, raising just enough corn and other produce to keep body and soul together—and not always that—and, being completely isolated in their mountain eyrie and cut off from civilisation, they lead precisely the same life as did their ancestors before the arrival of Columbus.

After crossing the mountains we again struck the Copan river at a small town named Jocotan (after the fruit known as *jocote*), next to which, not a mile away, was another small town called Camotan (after the *camote*, or sweet potato). Both these places were mere villages of a few hundred inhabitants, but both had perfectly magnificent churches large enough for populations of twenty thousand, and enormous cemeteries.

There must in Spanish Colonial days have been some curious ecclesiastical rivalry between the two towns to have brought about this strange state of affairs, but, with all other ecclesiastical interests in Guatemala, this was long since dead. Life in the two little places themselves, amidst the mountains, cut off from civilisation as they were, had altered little, if at all, during the last three centuries.

We made an early start next morning, and arrived about noon at a place called Lela Obraje, or Lela Where People Work, to distinguish it from another Lela, where presumably the people do not work.

There were a great number of mounds here built of sand and water-worn pebbles. They were of all sizes and shapes, and had probably been used as burial-mounds.

Though the situation was a delightful one, there were very few shacks visible, a fact perhaps not altogether surprising, as the place possessed such an ill-omened name, from the Indian point of view.

Here the river spread out into a shallow lagoon of considerable size, and we were fortunate enough to be just in time for a performance which probably very few people have ever seen.

It appeared that at a certain season of the year the machaca, fish about the size of, and not unlike, a herring, passed through this shallow lagoon in their migration up the river, presumably on spawning bent.

Immediately they appeared word was sent out for miles around to all the hill Indians, who swarmed down to the fishing. It was a sort of ceremonial fish-catching of this kind that we were just in time to witness.

On rounding a bend of the river, we suddenly came in sight of the lagoon, in which dozens of naked men and boys, each armed with a machete, or cutlass, were plunging wildly about in water up to their waists, rushing here and there, shouting, laughing, gesticulating, sometimes making a dive under the water with their hands, again hitting the

surface a smart blow with the machete, but all obviously tremendously busy and excited.

Of course we stopped to see the fun, and soon observed that every now and then one of them would bring up a wriggling machaca in his hand, or after a blow on the surface with the machete a stunned fish would float up, and these were thrown on the river-bank into a great heap, which grew ever larger and larger as we watched.

The smaller youngsters, after the manner of boys the world over, kept the fish tied in bunches to their waists, as a proof of individual prowess, though at the end of the day they had to be added to the common heap.

The shoals appeared to be so thick in places that the fish actually jostled each other, and could hardly avoid a grabbing hand, though the machaca is, as a rule, a very game fish, and gives splendid sport with a light rod.

Hundreds of thousands could have been caught with a net, and I asked one of the Indian men why they did not use one. His explanation was that they looked upon the whole performance as a splendid piece of sport, in which they all joined, and which gave them an excellent excuse for a picnic and little junket at least once a year, and they were afraid that if they caught all the fish there would be none left to return again, and that would be the end of the game—a very sporting way of looking at it, I could not help thinking—very much, indeed, the point of view of a man who preserves coverts, streams, or moors at home.

The fish were divided up at the end of the day amongst all who had participated in the sport, quite regardless of how many each individual might have caught.

It took us back, in fact, to the days of the Maya's former greatness, when communal fishings and huntings were frequently carried out by the men of entire districts, the spoils of the chase being salted and dried, and divided equally amongst all the people, a certain proportion being set aside for the priests, caciques, and nobles.

One saw traces of this custom still in the communal corn-planting amongst the Kekchi, where the whole village turned out to help each man make his corn plantation, each one giving and receiving service in turn ; and formerly amongst the Santa Cruz Indians, who carried out communal hunts, the meat derived from the game—deer, wild hog, curassow, gibnut, armadillo, etc.—being barbecued, and divided up amongst all who had taken part in the hunt.

The Indians in the settlements we passed through were much darker in colour than the northern Maya, some of them almost approaching the negroid, even on the usually covered parts of the body.

They were also far less intelligent, more sullen, and inconceivably filthy. The girls, with very few exceptions, were never even passable in looks, from a European point of view, and as they got older became positively hideous.

At almost every settlement we came across someone, usually a woman, picking vermin from a child's head, a sport at which they seemed to have acquired quite an extraordinary dexterity. Now, a northern Maya would consider it a disgrace to harbour such small deer, and a still greater one to be seen by a stranger having them extracted, but these Indians appeared to be quite devoid of shame.

Soon after passing Lela Obraje we noticed a number of tiny burial-places by the side of the trail, each grave marked by a rude wooden cross, upon many of which were hung objects used by the dead during life, and presumably useful to them after death—an hour-glass-shaped calabash, such as he was accustomed to carry water in when alive, for a labourer, an embroidered *huipil* for a woman, and a little chemise for a child.

Why the cemeteries were all placed close to the trail side, and at considerable distances from the villages, I was unable to ascertain, but probably to provide company for the *pishan*, or souls of the dead, thus lessening the risk of their troubling their relations by returning to the village, for amongst all branches of the Maya it is hoped that the dead,

once buried, will "stay put," but firmly believed that they seldom will.

We passed enormous flocks of good-sized, bright green parrots and numbers of small fat pigeons all along the road, so tame that it was quite obvious they had never been shot at, which seemed remarkable in a country where food was so scarce and the people so poor. The probabilities were however, that powder and shot were so expensive in this remote region as to make small game not worth the cost of killing in this way.

It was only sixty miles from Zacapa to Copan, but the road was one of the worst it was possible to imagine, passing over mountain and desert, through boulder-covered creek beds, and over great *barrancos*.

The explanation was, I believe, that it was originally constructed by smugglers of tobacco, salt, liquor, and other goods through the most inaccessible country available, with a view to avoiding encounters with Customs officers, and that as the people themselves were too indolent and the Governments involved too hard up, it had never been altered since.

Soon after lunch we came to the frontier between the Republics of Guatemala and Honduras. It was marked only by a little bush shack, which we had some difficulty in identifying as the Customs House, as the single Customs officer was out, and the people living on each side were uncertain as to which Republic had the honour of claiming them as citizens.

Our *arrieros* and mules were both extremely poor in quality; the two former walked on foot, which is a thing no self-respecting *arriero* will condescend to do, for he usually mounts the best animal of the *mulada*, and urges the cargo-mules on with loud cries and a cutting whip.

These two, however, were little better than very inferior peons, and followed the mule-train in sullen silence, taking every opportunity for a stop and rest, nor could we blame the poor fellows much, for they had nothing to eat on the

whole trip but corn-cakes, washed down with river-water, while the wretched mules were fed exclusively on dry maize stalks, than which it was impossible to imagine a less nutritious diet.

My mule ate growing tobacco-plants with relish. The first time I caught her at it I feared the consequences would be disastrous, but, so far from this being the case, she seemed greatly bucked, and constantly had a " chew " when opportunity offered, though none of the other mules would touch the weed.

Before the end of the last day of the journey the younger *arriero* was holding on to the elder, and tougher, in order to keep on his feet at all, and we had to dismount and walk from time to time to rest the mules.

Just as dusk was falling we arrived at last in the Copan valley, and the three miles from its western rim to the little village of Copan itself, situated near the centre, seemed the longest I ever travelled in my life.

CHAPTER XIII

Don Porfirio refuses to lose his leg—A brave padre asks for no delay in his passport to paradise—I camp at the ruins—Pay for it later by developing chiggers, beef-worm, malaria, and leichmaniasis, all contracted there—Scared mozos—Village near the ruins attacked by bandits—A magnificent stela—The advantage of British nationality—An infamous act—Maya employed glyphs for 8,000, 160,000, and 3,200,000 years—The reason they rarely used these—An archaic stela—Not in its original position—Why it was removed from old Copan—Probably beneath it is a stone-lined cruciform vault, with cache of original jades and other objects buried within—Wonderful spectacle of burning pine-covered mountain.

We put up at the house of Don Porfirio Villamil, where Morley and I had been well entertained four years previously. The owner was away in New Orleans, endeavouring to get fitted with a new leg.

It appeared that during the last three years Honduras had been in a more or less constant state of revolution. Our friend, Villamil, had risen to the rank of General in the Federal Army, but, unfortunately for him, during one of the innumerable skirmishes on the hills around Copan, had been shot in the thigh. His sons, who were with him when the accident occurred, seated their father on a quiet horse, and, supporting him on each side, led him home.

The nearest doctor was sixty miles away on horseback, and by the time he arrived gangrene had set in. He told the patient that unless amputation was performed at once he would lose his life.

Don Porfirio, however, refused any operative interference, saying, " Better lose one's life than one's leg." So the doctor went away, leaving the patient in charge of the only Englishman in Copan, who was also the only person acquainted with even the rudiments of first aid.

This Samaritan stood it as long as he could, dressing the leg daily, but at last the fœtor got too much for him, and he insisted on another doctor being summoned.

The old man, now feeling himself at death's door, refused, as he said it was mere waste of money on a dying man. The family, however, insisted, another medico was called in, and the patient's power of resistance having almost evaporated, an amputation, just below the hip-joint, was performed at once, and, strange to say, contrary to all the rules of surgery, such was our old friend's toughness that he made an uninterrupted recovery, though never quite satisfied because he had not been permitted to die in peace, and he had now departed for New Orleans to get a new leg.

Stopping in the same house was a padre, who had come on a visit to Copan, where there was no resident priest. He was a tall, soldierly, ascetic individual, who during the recent revolution had joined the army and risen to the rank of Colonel. He was exceedingly modest, and could not be induced to recount his experiences during the war ; fortunately, however, his friends were not so reticent, and told us several tales of his prowess.

On one occasion he had been captured by the rebel forces and sentenced to death by being blown from a small keg of dynamite. He was taken out and seated on the keg, but some delay arose in the leisurely arrangements, as it usually does in Latin-America.

After sitting quietly on the anxious stool for a quarter of an hour, he remarked, " Well, boys, light her up. I am impatient to be on my way to paradise." This so tickled the rough peon revolutionaries that they simply refused to carry out the sentence, and the valiant padre Colonel was liberated.

The noise was so terrific in the village during the first night—dogs barking, children crying, cocks crowing, neighbours snoring, and serenaders making night hideous—that I could not sleep at all, and determined to take my

cot and camp out at the ruins during the whole of my stay, which I accordingly did next day.

The silence at the ruins was absolute ; the very birds and animals seemed to have deserted the spot, and nothing broke the perfect stillness of the night but the sough of the wind in the branches and the curious hoot of the little muan bird, a species of small owl, held in great veneration by the ancient Maya, and often found sculptured on their stelæ.

Later on I paid dearly for sleeping in the bush at the ruins, for after I left Copan I developed chiggers in my toes —loathsome flea-like creatures, which burrow beneath the skin, where they lay a bagful of eggs, which later hatch out into young ones, each of which burrows in its turn.

After the chiggers I was attacked by pernicious malaria, and this I must have acquired from an infected mosquito at the ruins.

Later still I developed a new sort of beef-worm in my foot, the parent fly of which must undoubtedly have been a native of Copan, and lastly leichmaniasis, or Oriental sore, on my forehead, which, at the time of writing, still renders it impossible for me to wear a hat, though I think that, by means of scraping, cauterising, and injections of emetin, I have at last routed the bug.

I had the satisfaction, in this last case, of finding the fly which conveys Oriental sore—one of the tabanidæ—for I discovered it under my mosquito-net on waking up one morning at the ruins, and felt almost at once an intolerable itching where it had bitten me on the forehead.

It was a never-ending source of wonder to the Indians that I should stay at the ruins alone all night, for not only was there a good chance of being attacked by tigers or snakes, but *pishan*, or ghosts, were known to haunt them after dark.

The first evening, just after sunset, I heard two mozos flopping along on their sandals by the track which passed within fifty yards of where my cot was pitched ; they were singing a cheerful love-song, in which everything went

Beautiful Stela from Copan

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the way of the wooer, probably in order to keep up their courage. No sooner had they arrived at the nearest point than I emitted a long-drawn-out, mournful ululation, as near as I could get to what I imagined a lost soul might utter in Hades. For perhaps a couple of seconds there was absolute silence, then the song was replaced by a howl of terror, and the slow flip-flop of the sandalled feet became a continuous flapping noise, gradually dying away in the distance.

Next morning, however, I got a scare myself, for on reaching the village I found the Comandante de Armas, with eight soldiers, in sandals and cotton trousers, but well armed with modern rifles and plenty of ammunition, marching off to a neighbouring village, which had been raided by bandidos the previous night.

No one had been killed, as no resistance had been offered, but the unfortunate peasants had been stripped to the bone of their few poor possessions.

On hearing of this occurrence, I added a much more tangible and imminent danger than tigers, snakes, or ghosts to a solitary camp at the ruins. However, these things were on the knees of the gods, and the bandidos were welcome to such articles of my small outfit as they could carry away, and my life could be of no use to them ; besides which I had been careful to let it be widely known that I was an Englishman, and even Latin-American bandidos usually think twice before molesting a British subject, for it is well known that the British are extraordinarily unreasonable and persistent in exacting reprisals for any overt act leading to the loss of life, limb, or property by any of His Majesty's subjects.

My cot was pitched almost beneath one of the finest stelæ at the ruins, situated at the foot of a great stairway leading to a series of temples, palaces, and courts, at the summit of the acropolis.

Upon the front of this stela was sculptured a noble or ruler of heroic size, elaborately clothed, and wearing

numerous ornaments on wrists, chest, ankles, and legs. His face was calm and serene, and reminded one very forcibly of the Buddha.

The date at the side of the stela was 9.16.10.0.0., or A.D. 501 of our era, so that for more than fourteen centuries his quiet eyes had gazed towards the north over the valley, unaltered by the passing centuries, and curiously enough hardly touched by the falling of gigantic trees, so fatal to most of the stone monoliths erected by the Maya. The stela was of andesite, a beautiful light green volcanic stone, upon which rain and weathering seemed to have practically no effect.

But he was not to pass unscathed, for recently a part of the face of the grotesque figure adorning his head-dress, part of his pectoral, and both thumbs had been deliberately broken away, and, worst crime of all, upon his left arm had been carved, in letters large and deep, the name "MAX VAZ," with the date 1924, which should be regarded with execration by all archæologists as the name of one who had intentionally defaced one of the most beautiful monuments left by the aboriginal Americans.

This individual, it would appear, was a "General" in the revolutionary forces, who, unfortunately, while in Copan took it into his head to visit the ruins. He was now, I understood, a refugee in Guatemala.

No crime, except perhaps treason against one's king and country, could, in my opinion, be more heinous than the defacement of these magnificent monuments of a dead art. Murder, regarded as the most infamous of crimes, is after all but a crime against the individual, for which the perpetrator knows that he risks his life, and, moreover, not infrequently pays the penalty; but the wilful defacement of priceless and irreparable treasures, handed down to us by the great artists of the past as heirlooms for all time, is usually regarded as a mere misdemeanour, and punished by fine, a short term of imprisonment, or frequently not at all.

Stela on Western Hill-top

Linden Smith Painting Figure
Left is initial series 9.16.10.0.0 recording 501 A.D.
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Another extremely interesting point about this stela was that upon its west side was an Initial Series date, with the Great Cycle, or 8,000-year period glyph introduced, indicating that the Maya employed a time measure greater than the Bactun, or Cycle of 400 years, which was usually the highest one found in their inscriptions.

It is quite obvious why they rarely used the Great Cycle, when we remember that the much lesser period of a century is commonly omitted by us, as in dating our letters we write '26 for 1926.

A few instances are found of Great-great Cycles, or periods of 160,000 years, and one even of a Great-great-great Cycle, or period of 3,200,000, indicating that the Maya had a much more accurate conception of the age of the earth than had been held by any people, civilised or uncivilised, up to the middle of the nineteenth century.

A second stela of extraordinary interest was situated in the western court of the acropolis, at a height of about a hundred feet above that last described. This monument bore upon it the date 9.9.10.0.0, 2 Ahau, 13 Pop, falling within the year A.D. 363.

On its front face was sculptured, in low relief, the figure of a king, or high priest, wearing an extraordinarily elaborate head-dress, consisting of the conventionalised head of the plumed serpent, above which were placed two grotesque masks. Immense ear-plugs, an elaborately ornamented breast-plate, and broad wristlets were also worn, while below the narrow waist, which was uncovered, he was clothed by a *maxtli*, or apron-like garment, ornamented with sea-shells and masks.

The remarkable thing about this stela was that, while it dated from the middle of Katun 9 of the 9th Bactun, the great elevated court in which it stood dated from Katun 15 of the same Bactun, i.e. one dated from A.D. 363, the other from A.D. 471, wherefore it was obvious that the stela had been sculptured nearly one hundred and ten years previous to its erection in its present position. Furthermore,

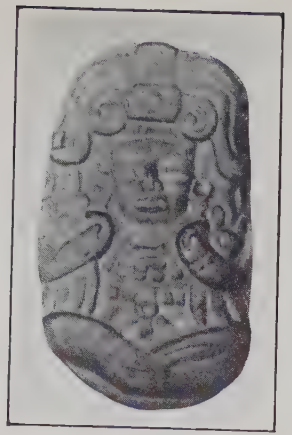
the stela itself was distinctly archaic in type. It was broader at the top than at the bottom, instead of being of the same breadth throughout, as were other stelæ in its vicinity. Moreover, the figure upon it was flat, sculptured in low relief, and not standing out, almost in the round, as were the more recent stelæ.

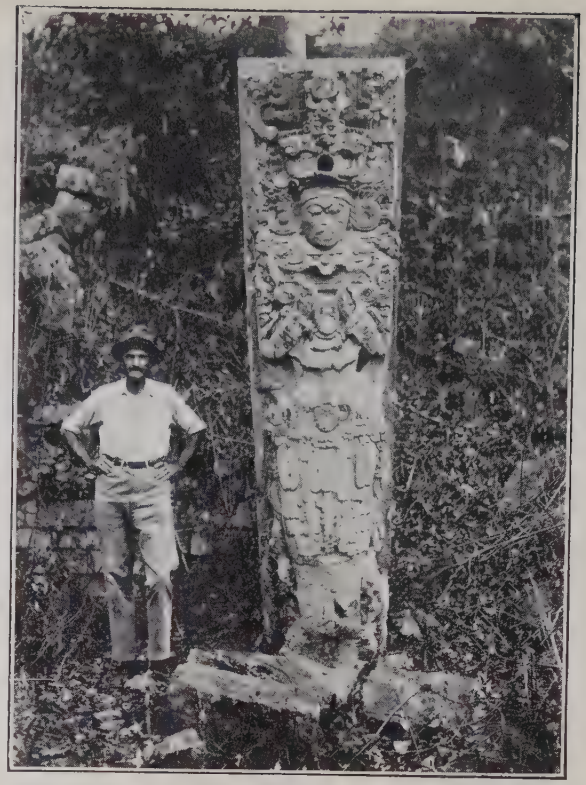
This monument was, in fact, almost certainly removed from what is known as Old Copan, situated about a mile to the west of the present ruins, and actually within the modern village.

At this site a number of fragments of ancient stelæ had been unearthed, some dating back to the early years of the 2nd Katun of Bactun 9, or A.D. 215.

There could be no doubt but that this was the original site of the ancient city, which, after approximately two centuries of occupation, was for some reason removed to the site of the present ruins. Many of the stones and monuments were no doubt broken up and re-used in constructing the newer city, and such as escaped this fate were almost entirely utilised by the inhabitants of the present village in building their houses, boundary walls, etc., so that at the present time practically nothing is left of old Copan excepting a few small mounds of ruins, this being the only monument, apparently, which the builders of the new city thought worth while removing to the new site. Possibly this was because of its beauty from an artistic point of view, though to the eyes of the new generation it must, with its low relief and flat outlines, have appeared a crude and archaic production, every line of which offended their æsthetic sense, so it was perhaps more likely that it escaped the fate of all the other old city monoliths from the fact that it represented some individual, who in his day had been a benefactor to the State—some great astronomer, or wise ruler, for, as war was unknown to the Maya of those days, it could not have represented a great soldier.

In excavation in a large, flat mound at the old city a number of fragments of monoliths were found, bearing





EARLY STELA, RE-ERECTED AFTER ITS USE IN OLD COPAN. NEARLY CONTEMPORANEOUS WITH EARLY MAYA JADE CARVINGS SHOWN AT SIDE

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dates ranging between Katun 2 and Katun 9, i.e. A.D. 215 to 353. One stela was intact, and bore the date 9.9.0.0.0, or A.D. 353. It rested on a large, oblong slab of stone, which in turn rested on a circular disc 4 ft. in diameter and 10 ins. thick. This covered a cruciform vault built of large, dressed stones, about 2 ft. deep, within which were found a water-worn pebble of jade, upon which was engraved a human figure in a squatting position, together with a sea-shell (Area Grandis)—the red lining of which was used by the ancient Maya in the manufacture of beads, etc.—two spear-heads, and one knife of obsidian. The pebble was convex, 8 ins. long, and carved on one side only, the rest of its surface showing distinct traces of attrition by water. The material was a greenish-yellow jade.

Close to this last find, and 6 ins. beneath the cement floor, was found a large slab of stone, 5 ft. 1 in. long, 2 ft. 9 ins. wide, and 1 ft. thick—undoubtedly the foundation-stone of another sculptured monolith which had at some period been carried away or broken up. Beneath this was a circular stone, 3 ft. 9 ins. in diameter, and 9 ins. thick, which in turn covered a second cruciform vault, 2 ft. deep. At the intersection of its axes was found a very remarkable cache, containing an anthropomorphic figure in dark green polished jade, $7\frac{1}{2}$ ins. high, eight pendants of apple-green jade, highly polished, representing human heads, and grotesque animals holding human heads in their open mouths, two pairs of jade ear-plugs, two large, tubular jade beads, bored through their long diameter for suspension, 40 smaller jade beads, 38 sea-shells, a quantity of cinnabar, black oily earth, powdered limestone, and sufficient metallic mercury to fill a 6-oz. bottle.

The jades were placed in the centre; around them were arranged the large sea-shells, to form a sort of containing wall, which was surrounded by a narrow, shallow trench containing the mercury.

We have no record of the fact that metallic mercury was known to the Maya of the Old Empire, and it was

certainly not known to their descendants at the time of the Spanish Conquest.

It is quite possible, however, that the ancient Maya may have been acquainted with the metal, but that the secret of its reduction from cinnabar was lost when they deserted the great southern cities and migrated into Yucatan, in which case the mercury recovered from this cache was possibly the oldest supply of metallic mercury in existence.

At the end of the north limb of the cruciform chamber was found a somewhat crude circular vessel of polished, reddish pottery, half filled with cinnabar. As an example of Maya ceramics, dating from the first half of Bactun 9, of which very few have, up to now, been discovered, it was extremely interesting.

The stela which stood above it having unfortunately disappeared, it was impossible to date this cache as accurately as the other. There could, however, be no reasonable doubt that, on stylistic grounds, it also belonged to Katun 9 of Bactun 9, i.e., between A.D. 353 and 373.

Now, we knew that all the stelæ at Old Copan were erected over stone-lined vaults, in which were cached jade, implements, weapons, pottery, and other artifacts of the period to which they belonged; further, there was no possible doubt but that the stela from the western court of the acropolis already described came originally from Old Copan, and was almost contemporaneous with the jade figurines from the two cruciform vaults I have mentioned, for it could be seen that the type of face was almost identical in each, broad, with large, thick-lipped mouth, prominent eyes—closed in the case of the figure on the stela—and broad, flattened nose.

Moreover, in all three the plumed serpent's head, highly conventionalised, formed the head-dress, large round ear-plugs were worn, and the hands were held in the same curious position across the chest, half open, the fingers pointing outward, the thumbs upwards.

Now there is every reason to suppose that this stela is

the finest of its kind, and the question arises—were the contents of the vault which lay beneath it removed at the same time that it was removed to the acropolis, and, if so, were they reburied in a new vault beneath the stela?

This is an important point, for as the stela itself is probably the finest of its kind, so the jade and other objects beneath it should be the finest of theirs, and accordingly afford us samples of what the early inhabitants of Copan could accomplish in the way of jade carving and pottery decoration when at their best.

This problem can of course only be solved by digging beneath the stela, and for this it will be necessary to obtain permission from the Honduranean Government.

A great hill, covered with pine-trees, to the west of the valley, had been alight ever since we arrived. The fire which the natives said was started by *mala gente*, or evilly-disposed people, commenced, apparently, on the summit of the mountain, and each night the ring of fire which it formed grew wider and wider as it descended the sides and neared the village, affording a most wonderful spectacle after dark, compared to which all the fireworks of a Prince's birthday at Monaco would be as a candle to the moon.

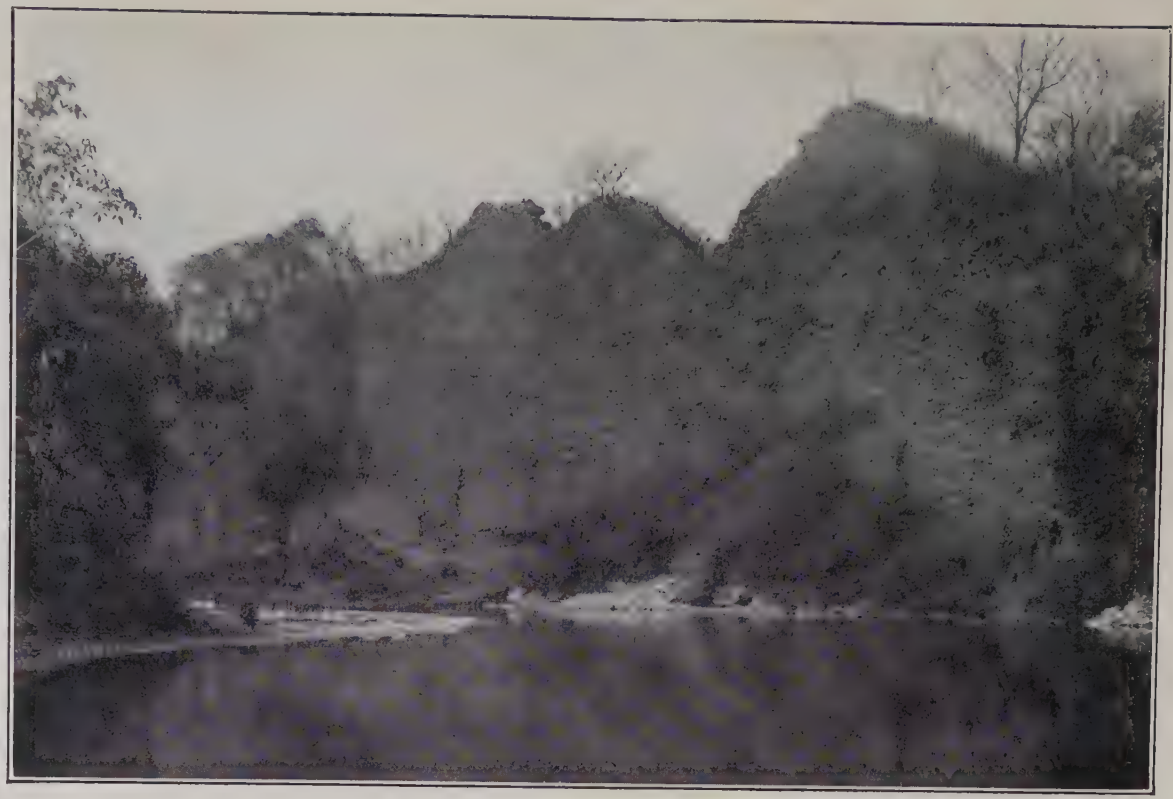
Unfortunately the smoke given off was terrific, and hung over the valley like a vast pall, rendering it impossible to see clearly the stela marking the western extremity of the astronomical base-line, from the stela on the hill at the eastern end, $4\frac{1}{2}$ miles distant; and, in the absence of wind to clear the smoke away, making an observation of the sunset extremely difficult.

CHAPTER XIV

The ancient city of Copan—The acropolis—The largest archæological section in the world—Made by the Copan river—Disappointing problem presented by Maya cities—The greatest sundial in existence, four and a half miles across—Shifting Maya New Year's day—Coincidence of Maya New Year's day and first day of the agricultural year, marked by sun setting behind western of two stelæ, as viewed from the eastern on that date—The setting of Pop in order—The astronomical conference at Copan in A.D. 503—We visit Stela 10, and have it re-erected for our observations—Shifting of the stela by the ancient Maya—A soldier, shot in the recent revolution, buried by his companions in the stela-hole, to save trouble of digging a grave—April 9th, momentous day of observation arrives—Valley full of smoke from burning mountain and *milpas*—Terrific thunderstorm—Magnificent spectacle—Miserable Indian hut—Sliding down a nearly perpendicular mud trail on mule-back—We lose the road and miss the ford—Next day fine, and observations carried out—Facts ascertained by Lindsay to be submitted to Department of Terrestrial Magnetism of Carnegie Institution—Morley hopes from data now available to be able to work out an accurate day-to-day correlation between Maya and Christian chronologies—Find beautiful figurine of ancient Maya woman of Copan—Archaic figure found near ruins—Were the ancient Maya interested in the collection of articles belonging to the archaic civilisation of four thousand years ago ?—Extraordinary find of small bronze lion—Has no archæological significance—Military called out to defend the town from bandits—A serious night affray—An insatiable thirst for vengeance.

THE ancient Maya city of Copan, situated in the north of the present Republic of Spanish Honduras, close to the Guatemalan frontier, is the southernmost, and one of the oldest and longest occupied cities of the Maya Old Empire, which flourished, approximately, from the first century B.C. to the sixth century A.D.

Why Copan, one of its most important cities, should have formed practically the southern boundary of the Maya Old Empire is difficult to imagine, but it has recently



LARGEST ARCHÆOLOGICAL SECTION IN THE WORLD, 114 FEET HIGH, COPAN

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been suggested that south of this the Maya would have entered the earthquake zone, for which their peculiar style of architecture was totally unsuited.

The Copan river runs immediately to the south of the ruins, and in changing its course had destroyed a considerable portion of the main group, leaving a clear section through the acropolis, standing up perpendicularly from the river to a height of 114 ft., and forming the largest known archæological section in the world. The manner in which the river, in altering its bed, has cut straight through the solid structure of the acropolis, almost as one cuts a cake in two, is very remarkable.

At the very bottom of the section, on the river-level, and over one hundred feet beneath the present top of the acropolis, were the walls of the rooms which formed the original building over which it was constructed, and strewn all along the river bed, for a great distance downstream, were squared stones of all sizes, washed out of the ruins.

The main group, or acropolis, was an immense, complicated mass of courts, plazas, pyramidal structures, and stairways, which, during the four hundred years' occupancy of the city, were added to, enlarged, and built over, till the original structure could only be observed in the section cut by the river, 114 ft. below the present level of the top of the structure.

Numbers of exquisitely sculptured stone monoliths and altars were scattered throughout the ruins, upon which were depicted figures of heroic size, of priests and rulers, with elaborately decorated vestments, head-dresses, and ornaments.

Upon nearly every monument and some of the stairways were found hieroglyphic inscriptions, most of which dealt with time-counts, and gave the dates in the Maya calendar upon which the various structures were erected. In addition to these, however, there were a number of hieroglyphics as yet undeciphered, which dealt probably with historical events, as wars, dynastic changes, floods, pestilences, etc.

Copan, in fact, presents the same disappointing problem as do other Old Empire Maya cities. They give so much, yet withhold so much more, for, though we have the perfect skeleton of Maya history for nearly two thousand years, we are unable to clothe the bare bones of dates with the living flesh of historical events. It is very much as if a history of England, from the Roman invasion, were inscribed on a series of monoliths, the dates written in modern English, the historical events in early Anglo-Saxon, and presented to a modern schoolboy to study.

Around the main group were numbers of smaller groups, almost covering the entire floor of the valley.

Situated upon two hill-tops, one almost due east, the other almost due west, of the ancient city, were two stone monoliths, both now fallen and broken, the eastern known as Stela 12, the western as Stela 10. Both stelæ recorded Maya Initial Series dates, that upon Stela 10 reading: 9.10.19.13.0, 3 Ahau, 8 Yaxkin, or September 6th, A.D. 392. (All dates of our era will be given according to Spinden's correlation, though this can no longer be accepted in its entirety.) Stela 12 recorded two dates, which included between them the date on Stela 10. Dr. Spinden believes that these two stelæ formed a gigantic sundial, the largest in the world, no less than four and a half miles across, and that the sun, as viewed from the eastern stela, set behind the western stela every year upon a date which the Maya regarded as the beginning of their agricultural year.

At first this date corresponded to April 5th of our year, but later, when the movable Maya New Year's day, called 0 Pop, fell upon April 9th the western stela was moved slightly to the north, so that the sun set behind it on April 9th instead of on April 5th. The autumn date upon which the sun in its passage south set exactly behind Stela 10 was in the April 5th position of the stela on September 6th, and in the April 9th position on September 2nd.

These two dates were of enormous importance, and were recorded repeatedly on monoliths and stairways in the

STELA FROM COURT OF THE STELÆ, COPAN

STELA RECORDING BEGINNING OF AGRICULTURAL YEAR, APRIL 5TH, 471 [p. 188

ruins of the city, which were situated about midway along the imaginary line joining these two hill-top stelæ.

On Stela A, in the ancient city, was recorded the Initial Series date 9.14.19.8.0, 12 Ahau, 8 Cumhu, or April 5th, A.D. 471.

On Altar U a number of dates were found; the first of these, 3 Caban, 0 Pop, can be referred to the Initial Series 9.15.9.10.17, 3 Caban, 0 Pop, or April 9th, A.D. 481. This date was of immense significance, as 0 Pop was the Maya New Year's day, and here it was recorded as falling upon the first day of the agricultural year.

The Maya year contained 365 days, and no leap year, consequently the day 0 Pop, with which it began, fell gradually behind, one day in every four years, till, in the slow revolution of the wheel of time, it again occupied both the first position of the agricultural and the first position of the civil year, or, in other words, was "set in order."

A second date on this altar was 9.16.12.15.17, 6 Caban, 10 Mol, September 2nd, A.D. 503, the date, it will be noticed, on which the sun set in the same position as on April 9th.

Other dates recorded on the altar were: 9.15.8.10.12, 2 Eb, 0 Pop, April 9th, A.D. 480. 9.15.9.0.2, 9 Ek, 10 Mol, September 6th, A.D. 480. 9.15.9.10.17, 3 Caban, 0 Pop, April 9th, A.D. 481. 9.16.12.5.17, 6 Caban, 10 Mol, September 2nd, A.D. 503. Here two successive New Years' days were given, 2 Eb, 0 Pop, April 9th, A.D. 480, and 3 Caban, 0 Pop, April 9th, A.D. 481.

The date 6 Caban, 10 Mol, was evidently one of surpassing importance at Copan, as it was recorded over and over again on stelæ, altars, and stairways.

In four cases where this date occurred the monuments were decorated with two rows of men seated on hieroglyphics, each looking towards this date, inscribed upon the stone between them.

It is Spinden's opinion that the rows of men here depicted represented an astronomical congress, held at Copan on 9,16.12.5.17, 6 Caban, 10 Mol, or September 2nd, A.D. 503,

in connection with the setting of Pop in order and the alteration of the astronomical base-line between the two hill stelæ, by shifting the western stela slightly on its platform, so that the sun might set behind it on April 9th and September 2nd, instead of upon April 5th and September 6th.

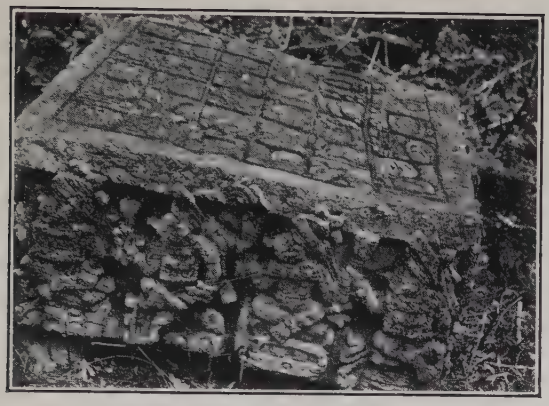
These astronomer-priests were represented as seated upon hieroglyphics, a few of which were recognisable, and which may have represented either their names, the cities from which they came, or the particular branch of astronomical observation—which to the Maya meant religion, for they practically worshipped time—in which they were adepts. They carried in their hands objects probably connected with their primitive astronomical observations.

This setting of Pop in order, which took place at Copan, was accepted by the other Maya cities of the Old Empire, and was referred to in an ancient Maya manuscript, dating from New Empire days, known as the Book of Chilam Balaam of Chumayel, in which it was stated, "*Oxlahun Ahau tzoci Pop*," or "In Ahau 13 Pop was put in order." This passage has always been very obscure to Maya students, but Dr. Spinden's explanation of it is, I think, most convincing.

Spinden's correlation was based upon observations made by Carpenter, working in 1916 for the Carnegie Institution of Washington. Carpenter was not an astronomer, but from the data supplied by him Dr. Wilson, Professor of astronomy at Harvard, worked the true bearing out as N. 81° 47′ W., accepting which, the sun would set behind the western stela 20.3 days after the vernal, and 20.6 days before the autumnal, equinox, i.e. on April 9th and September 2nd.

The object of the present expedition was mainly to verify the results arrived at ten years ago, with better equipment, and more expert manipulation of instruments available.

Morley and I visited Stela 10, two and a half miles from



Sides of Altar, showing Procession of Priests

Front, recording Sept. 2nd, 503, Astronomer Priests each side

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the town. This monument was broken into two pieces, and had been rooted up from the hole in which it stood before the ruins were known to Europeans, probably by the fall of a gigantic pine, which at the same time broke it in two.

Upon the north side of the stela was inscribed the Initial Series date 9.10.19.13.0, 3 Ahau, 8 Yaxkin, corresponding to September 6th, A.D. 392. It stood upon a low, oblong, stone-faced platform, originally, probably, in the centre, but had later been moved ten feet towards the north end of the platform, doubtless when Pop was set in order and the commencement of the Maya agricultural year was changed, so that the sun set directly behind it from the eastern marker on the freshly appointed New Year's day.

A great hole existed where the stone had stood after its change of site, but last year, during the revolution, a soldier was shot beside the monument, and his companions used the stela-hole as a convenient grave, dumped the corpse in, and covered it with rocks. We did not like to disturb the body, so dug a hole slightly to the west of the old one, but along the same base-line, and re-erected the stone in this new site.

As will be seen, the upper piece would not quite balance upon the lower, and had to be held in place by a short pine-log.

A dozen large pine-trees which obscured the line of sight along the base-line were cut down at the same time, and behind the stela was built up a great heap of logs of split, fat pine (which give a tremendous blaze) to form, when lighted, a beacon visible from Stela 12 at the other end of the base-line four and a half miles away, and so render a night observation possible.

April 9th arrived, the momentous day upon which we hoped to ascertain definitely whether the sun, as observed from the stela on top of the eastern hill, did actually set in a direct line with the stela on top of the western hill.

Lindsay and his assistants had been working at the top

of the east hill all day, and Morley and I, accompanied by Lizanaga and Muddy, set forth to join them in the early afternoon.

Our hearts misgave us as we ascended the almost perpendicular hill which led to the stela, for the entire valley was full of smoke, partly from burning corn plantations, and partly from the burning, pine-covered hill, rendering visibility extremely low; and, in addition to this, soon after 4 p.m. an ominous rumbling of thunder was heard to the east, where heavy clouds had been banking up for some time, and shortly a terrific thunderstorm broke over the valley, accompanied by a high wind and deluge of rain.

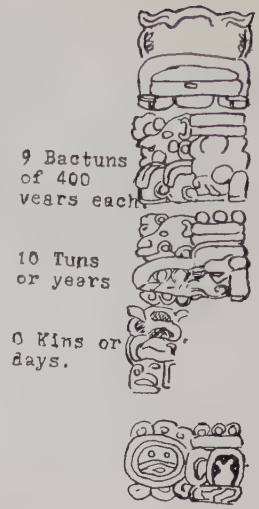
The spectacle from this bare hill-top, one thousand feet above the valley, was a truly magnificent one. The dense gloom, due partly to the smoke, and partly to the heavy sullen clouds hanging over us, was split at frequent intervals by brilliant flashes of lightning, so close that it appeared every second as if one must strike us. Each of these was followed with hardly any interval by a deafening crash of thunder, which seemed to shake the very earth on which we crouched.

Visibility now practically disappeared, and one could not see a hundred yards, much less four and a half miles.

Drenched to the skin and shivering with cold—though when we left the valley the day had been oppressively hot—we crouched in the lee of the monolith for such slight shelter as it afforded. Quickly tired of this, however, and fearing that in the exposed position we formed too prominent a mark for the lightning, we made a break to reach the nearest Indian hut, about a quarter of a mile away, where the six of us crowded into one miserable 12-ft. by 15-ft. living-room, already occupied by two men, two women, half a dozen children, five or six dogs, and innumerable young chickens and ducks.

I had never before had such an object lesson at close quarters of the misery, dirt, and poverty in which these unfortunate Indians of the highlands lived. The shack

Stela on W. boundary of Astronomical Base Line, recording September 6th, 392



The first 4 glyphs correspond to the first 4 in the photographs, the last to the bottom one in photograph.

walls were of sticks, the roof of grass, and through both the rain drove in everywhere, till the inside of the hut was almost as wet as the outside, and the humpy earth floor, which the owners had not even taken the trouble to level, was churned into a sea of mud.

The furniture consisted of two beds, made from canes, placed side by side on a framework of sticks—on which, presumably, the whole family slept, unless they occupied the floor—a few earthen vessels, and a net full of ears of maize.

Men, women, and children, all clothed in just sufficient filthy rags to cover their nakedness, crouched dejectedly on the floor, while we sat on the beds.

Finding the inside of the house almost as cold and wet as the outside, we made a rush for a tiny hut only a few yards away, in which we could see a bright fire glowing. This proved to be the kitchen, and was much more comfortable than the living-room, as two cheerful wood fires were burning, over one of which was placed a *comal*, or great, round, flat disc, upon which corn-cakes are baked.

An iron disc is used everywhere for this purpose amongst the northern Maya, but these poor people still clung to the pottery *comal* of their ancestors, made by themselves from clay.

On the other fire an earthen pot simmered, in which was boiling their dinner, consisting of a mess of pumpkin.

We all sat on the floor enjoying the cheerful warmth, and Morley took his coat off and hung it in front of the fire to dry, but on going to retrieve it, found it dyed a brilliant yellow from drippings through the roof falling on great bunches of tobacco-leaves (hung there to cure) before reaching his garment.

This little accident tickled the Indians' sense of humour tremendously, for nothing appeals to them like a practical joke—at someone else's expense—and I was glad to see the poor fellows roused from their state of apathetic misery. Morley did not, at first, appreciate the humour of the situation, though it dawned upon him later.

We waited here till nearly sunset, when, as the whole valley was filled with mist, thick almost as a London fog, we gave it up as a bad job, and started homewards. But the mountain, which had been difficult for the mules to ascend, was almost impossible to descend now that it was covered with greasy, slippery mud. Some got off and led their mules, and those who remained in the saddle had the novel sensation of travelling down a snow-covered slope, with numerous sharp bends, on mules shod with ski.

This might have been quite an amusing sport but for the network of low bush with which the path was roofed, for it had been cut originally for short Indians travelling on foot, not for tall Europeans on mule-back. This, in places, necessitated lying flat along the mule's back to avoid scarification by the innumerable needle-like thorns, spurs, and minute, poisonous prickles with which almost every shrub, tree, and bush in this benighted land seemed to be armed.

Night overtook us before we reached the ford in the Copan river, and Morley, who was leading, impetuous as usual, dashed off in the dim light along the wrong trail, following which we soon found ourselves in an old, last year's cornfield, without any trail at all. At the far end of this was a patch of low bush, on the farther side of which we could hear the river, and, pushing through the scrub, we arrived on the bank.

But this was certainly not the ford, and, hesitating to plunge into the water, which was fifteen feet deep in places, not even knowing what sort of a landing we might find on the opposite side, we determined to turn back and try to ascertain where we had got off the trail.

All of us were wet through, and beginning to feel extremely chilly, for even in the valley the nights get bitterly cold, making a couple of blankets very acceptable; and clad as we were, only in thin cotton shirts and khaki trousers, a night's exposure in the open would have been exceedingly uncomfortable, if it did not end up with pneumonia.

ALTAR

First two glyphs recording Sept. 2nd, 503, astronomical congress. Third glyph in 6th column referable to April, 480. Other dates recorded are Sep. 6th, 480 and April 9th, 481.

FRONT OF ALTAR SHOWING COVENTIONIAL SERPENT'S HEAD

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We gave the animals their heads, for a mule's instinct is always to be trusted before a man's lack of intelligence, and were rewarded by the leading mule taking us straight to the ford down what had looked like a little cattle-track, from which even our topographical sense, shrivelled by the streets and numbers of civilisation, could not very well miss the road to the village.

Next day was almost perfect, a bright sun shining in a cloudless sky, the smoke from the burning pine-woods and corn plantations nearly completely cleared away by the rain of the previous night, and, better still, the ground so wet that it would be impossible for the Indians to set fire to the bush again for at least a couple of days.

Lindsay set out in the morning for the eastern hill-top stela, where he was joined by the rest of the party early in the afternoon.

About five the sun appeared, like a ball of red flame, in the western heavens, and as it neared the horizon gradually became dimmer and dimmer, till by the time it set over the hill-top it was absolutely invisible.

At 7.30 p.m. the great fire of split pine was set alight, as had been arranged by the men stationed on the western hill, and the illumination was so clear that the stela, directly behind which it stood, was clearly visible with glasses.

Lindsay has now obtained data which will make it possible to determine with absolute accuracy the day on which the sun, as viewed from the eastern marker, sets behind the western marker.

He has obtained the exact altitude of both the stelæ above sea-level, with proper barometric corrections, the azimuth of the western from the eastern stela, and from Copan, azimuth of sunset from Copan, exact distance between the two stelæ, by triangulation. He remained behind for further observations, but all these data must be submitted in the first place to the Department of Terrestrial Magnetism of the Carnegie Institution, of Washington.

The most remarkable discovery made, however, was the fact that the base of the eastern stela was on an exact level with the base of the western, which, in Lindsay's opinion, is a positive indication that the Maya were acquainted with some form of water-level.

The more we investigate the relics left by this remarkable people the more we realise that we have as yet merely scratched the surface of their knowledge in astronomy, physics, arithmetic, and art.

The expedition had done all that it set out to do, for this date, having been fixed beyond possibility of error, will give us the day in spring upon which the sun sets directly behind Stela 10 on its course northward, from which may be calculated the autumn day upon which it will set behind the same stela in its course southwards. Now the latter date is recorded as a Maya Initial Series date upon the western marker, 9.10.19.13.0, 3 Ahau, 8 Yaxkin.

The days in Initial Series dating follow each other in regular succession through all time, and no day thus designated can ever recur ; once, therefore, a single Maya date can be definitely identified with any day in our own calendar, every known Maya date can readily be worked out. In other words, Dr. Morley hopes that it will be possible from the data now obtained for him to fix a perfectly accurate day-to-day correlation between the Maya calendar and our own.

During our stay in Copan we obtained from the Indians some very remarkable objects which had been found by them around the ruins in clearing the land to make their corn plantations. These included a beautiful little figurine of hard brown pottery, representing a woman in a sitting posture, with her legs crossed under her. She wore the usual large round ear-plugs, to the level of which her hair had been bobbed in quite modern style ; naked to the waist, she was covered below this by the usual Maya *pik*, or skirt-like garment. The face was of a thoroughly un-Maya type, broad and flat, with large mouth, thick lips,

THE LARGEST SUNDIAL IN THE WORLD, COPAN
(Reproduced by kind permission of the *Illustrated London News*)

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and exceedingly oblique eyes, a type almost identical, in fact, with that commonly found amongst the Indians inhabiting this part of Honduras at the present day, who are probably the direct descendants of the original builders of the ruined city.

Two heads of distinctly archaic type were also brought to light near the figurine, which would tend to support Dr. Gamio's theory, the result of his recent work in Guatemala, that the archaic civilisation, dating back to about the second millennium B.C., was much more extensive and widely distributed than is usually supposed, and covered, in fact, the greater part of the highlands of Central America and Mexico.

Any archæologist, shown the Copan heads, without any previous knowledge of their provenance, would at once place them as coming from or near the valley of Mexico, where the archaic civilisation probably reached its height, and has been most closely studied.

The discovery of these two archaic heads gives rise to the intriguing question—were the Maya themselves interested in archæology? To which I think the answer must be in the affirmative.

At Lubaantun, in one of the pyramids, dating no further back probably than the thirteenth century, was found a magnificent, typical archaic head, while in the Peten district of Guatemala in a grave, dating from about the sixth century, was found an entire stone figurine belonging to the archaic period, together with objects belonging to the same period as the grave.

The Maya must undoubtedly have been interested in finding figurines of a type so different from anything they themselves manufactured, belonging to a people who had left the region many centuries before the earliest Maya arrived, and who, though they knew it not, were probably their own remote ancestors, and there can be little doubt that the priests, and more intelligent of the people, collected these objects and regarded them with a certain amount of veneration.

But, apart from the archaic, the Maya had a considerable regard for things belonging to their own past. Witness the enshrinement in a temple of the late period at Tuluum of a sculptured monolith left behind by the old Maya nearly one thousand years before; also the re-erection in the acropolis at Copan, as already related, of an early style stela, which from an artistic point of view must have been anathema to the Maya of Katun 15. Yet, as a relic of antiquity, it received as prominent a place in their national gallery as if it had been by a well-known master, though it is also possible that this stela was preserved because the figure upon it represented some celebrated man of their race.

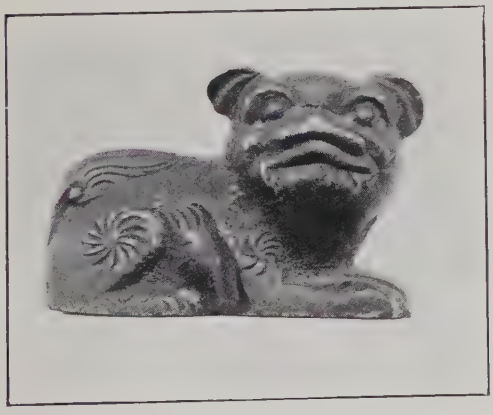
One of the most extraordinary finds, however, consisted of the small figurine of a lion, in a squatting position, the head looking over the right shoulder. This was nearly one inch long, and cast from some bronze-like metal. It was found resting upon a small round disc of shale. The figurine was strongly suggestive of Oriental origin.

As no metal, except quicksilver (which had probably been produced accidentally from the mixture of cinnabar with a number of other minerals, found at Copan, beneath a stela about fifteen hundred years old), had ever been found at Old Empire Maya sites, it was practically certain that this little object was placed where it was discovered at some period after the coming of Europeans.

Its presence, however, was none the more easy to explain on this hypothesis, for it was a beautifully made little object, of considerable intrinsic value, and, placed as it was upon a disc of shale, had obviously not been accidentally dropped; and, indeed, how such an object, almost certainly of Oriental origin, could ever have come into the possession of the early Spanish conquerors is nearly as difficult to explain as its possession by one of the aboriginal Indians.

Those archæologists who uphold the hypothesis that the Maya civilisation originated in the east might regard this little figurine as evidence in support of their theory; but, though it is difficult to account for its presence in a site which

Archaic Figurine Three Thousand to Four Thousand Years Old, Copan



Lion of Bronze-like Metal [*p.* 198

has only been occupied by Indians and mestizos since the original builders deserted it, some thirteen centuries ago, we are not, I think, justified in regarding it as otherwise than fortuitous, and of foreign origin.

It was very remarkable that in a cursory examination of the site we should have come across objects belonging to three civilisations: first, the archaic, dating back some three thousand five hundred years, then the Old Empire Maya of fifteen centuries ago, and finally, an object of indeterminate age, but probably brought to Copan soon after the conquest.

One morning, on returning to the village from my camp at the ruins, I found that during the night quite a serious shooting affray had taken place.

It appeared that a number of the citizen soldiery had been armed with rifles and set to patrol the town, as, after the looting of a neighbouring village, a couple of nights before, as already related, it was feared that the bandidos might be in sufficient force to attack Copan itself, and the Comandante de Armas was determined to be prepared for such an eventuality; and not without reason, for Copan had been looted on several occasions during the recent revolutions, and I saw the gaps where tiles had been torn up from the floors in many of the houses in search of hidden treasure. The householders had, for the most part, not taken the trouble to replace these, for, as they said, with a shrug, "*No vale la peña, cuando van regresar otro vez*" ("It is not worth the trouble, since they will return again").

Several of the soldiers were patrolling the town together that night, when one handed his rifle over to another to hold for a moment, stretching out his hand when he was ready to take it back, making at the same time an exceedingly insulting remark to the man who held it. The latter, exclaiming, "Ah, Cabron, I will stand that from no man," raised the rifle, and deliberately shot the owner.

The bullet first passed through his left hand, then, entering

at the bottom of his belly, just above the pubes, passed outwards, and slightly backwards, and made its exit just above the hip joint.

A third soldier, who had witnessed the occurrence, immediately seized the man holding the weapon, with a view to haling him off to the *calaboso*, but the wounded man, to whom a deferred and vicarious revenge did not appeal at all, for, as he explained later, he might be dead before he had an opportunity of enjoying it, promptly took matters into his own hands, drew his revolver, and commenced firing at the aggressor. The man holding the latter, realising his precarious position, for he was just as likely to be shot as the other, at once loosened his hold, and the culprit forthwith escaped into the bush, where, in the dim light, it was absolutely useless to follow him.

As there was no other doctor in the place, I was requested to attend to the wounded man, and see what I could do for him. I found him in a wretched little mud hut, filled with curious spectators, very feverish and excited, giving a graphic account of his adventure.

He did not express the least anxiety about his own wounds, serious as they were, and painful as they must have been ; his one obsession was to get another chance at his opponent. He felt sure he had hit him at least once, but his chief regret was that the shot had not been fatal.

There was nothing to be done but dress the wound and keep the patient absolutely quiet, though I feared, poor fellow, his chances of recovery were exceedingly slim, for even had the bullet missed all the pelvic viscera, which by a miracle it might have done, the serious nature of the wound itself, with the innominate bone shattered, would probably lead to a fatal termination later.

I saw fresh bands of soldiers, later in the day, scouring the bush for the culprit, who by this time, however, was safely over the Guatemalan frontier, only a few leagues away.

Later, we heard that this unfortunate had been shot through the arm and in the lung, and had managed to send

SIX INSCRIPTIONS FROM TWO ALTARS AT COPAN

Photographed for the first time by the Carnegie Expedition

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word to his relatives that he was hidden out in the bush, in very evil case, but afraid to be carried into the village, lest he fall into a still more evil case in the *calaboso*.

I volunteered to visit his hiding-place and do what I could for him, but of course my offer could not be accepted, as I should only have guided the soldiers straight to his refuge and led to his immediate arrest.

Before we left I heard that the poor fellow's life was despaired of, so the other man was not such a bad shot as he had feared, but even then he was not content, as so bitter was his feeling of revenge that nothing short of a second personal encounter would have satisfied him. I have no doubt an opportunity will soon be afforded him in the Maya *metnal*, whither they are probably both headed.

The six inscriptions from two altars, shown in the photograph, are amongst the most interesting in the whole Maya area. The altars are situated in the western court of the acropolis at Copan, and were photographed for the first time during the Carnegie Institution of Washington's expedition to the city this year.

Both altars were probably erected together on 9.13.0.0.0, 8 Ahau, 8 Uo, or May 19th, A.D. 432, according to Spinden's correlation, though the date upon one of them is 9.12.10.0.0, or ten years earlier, but the inscriptions upon them have to be read from one to the other, which renders it almost certain that both were erected on the same date.

The inscription, which, owing to the obliteration of many of the glyphs, was extremely difficult to read, was deciphered by Dr. Sylvanus G. Morley. It indicates very clearly the extraordinary complexity of Maya calendaric calculations. It will be observed that about one-third of the total number of hieroglyphics in the inscription are decipherable, and this holds good for most inscriptions of any length throughout the Maya area.

The last two Initial Series, with the distance number

between them, are extremely interesting, as the first of them goes back to the very early date 7.1.13.15.0, 9 Ahau, 13 Cumhu, or December 10th, 580 B.C., and probably records the formal adoption of the calendar by the Maya.

1. Right half of introducing glyph.

2. Above, 9 Bactuns of 400 years ; below, 12 Katuns of 20 years.

3. Above, 8 Tuns, or years ; below, 3 Uinals, or months.

4. Above, 9 Kins, or days ; below, 8 Muluc.

7. Above, and to right, 17 Mol.

10. Below, right side, 4 Uinals, 4 Kins.

11. Above, left side, 13 Tuns ; below, 2 Katuns.

12. Above, 6 Chichan, 18 Kayab ; below, left, 14 Uinals, 11 Kins.

13. Above, left, 1 Tun ; below, left, end of a Lahuntun or 10-Tun period ; below, right, 9 Ahau.

14. Above, left, 18 Zotz.

The whole reads 9.12.8.3.9, or 9 Bactuns, 12 Katuns, 8 Tuns, 3 Uinals, and 9 Kins after the commencement of Maya chronology, falling on a day 8 Muluc, the 17th of the month Mol. Next comes a distance number of 2 Katuns, 13 Tuns, 4 Uinals, 4 Kins, to be counted backward from the Initial Series date, which brings one to the date 9.9.14.17.5, 6 Chichan, 18 Kayab, recorded on the altar.

15. Above, right, 11 Kins, 14 Uinals ; below, left, 11 Tuns (numerical coefficient gone).

16. Initial Series introducing glyph.

17. Above, 9 Cycles ; below, 13 Katuns.

18. Above, 0 Tuns ; below, 0 Uinals.

19. Above, 0 Kins ; below, 8 Ahau (obliterated), 8 Uo.

21. Above, 0 Kins, 3 Uinals, 16 Tuns ; below, 10 Katuns, 2 Bactuns.

22. Above, right, 9 Ahau ; below, left, 13 Cumhu.

23. Above, 9 Ahau, 18 Zotz.

The whole reads as follows. Add 11 Tuns, 14 Uinals and 11 Kins to the first Initial Series, i.e., 9.12.8.3.9, and the date 9.13.0.0.0, 8 Ahau, 8 Uo is reached. Next take

the distance number 2 Bactuns, 10 Katuns, 16 Tuns, 3 Uinals, and 0 days, and subtract it from the second Initial Series above, i.e. 9.12.10.0.0, and the date 7.1.13.15.0, 9 Ahau, 13 Cumhu is arrived at.

The inscription is more easily followed when recorded arithmetically.

Bactuns	Katuns 20 to a Bactun	Tuns 20 to a Katun	Uinals 18 to a Tun	Kins 20 to a Uinal	
9	12	8	3	9	8 Muluc 17 Mol.
	2	13	4	4	Counted backwards or subtracted.
9	9	14	17	5	6 Chichan 18 Kayab.
9	12	8	3	9	
		1	14	11	Carried forward from the first Initial Series.
9	12	10	0	0	9 Ahau 18 Zotz (ending a Lahuntun).
	(July 11th, A.D. 422)				

On the second altar :

9	12	8	3	9	
		11	14	11	Added.
9	13	0	0	0	8 Ahau 8 Uo, May 19th, A.D. 432. The latest date recorded, and probably the contemporaneous date of both altars.
9	12	10	0	0	9 Ahau 18 Zotz, July 11th, A.D. 422.
2	10	16	3	0	Subtracted.
7	1	13	15	0	9 Ahau 13 Cumhu, December 10th, 580 B.C.

CHAPTER XV

Rifle-shots around my sleeping-place at the ruins—I take cover beneath a stela—The Comandante de Armas' explanation—Leave Copan—Camp at Jocotan—Badly bitten during the night by vampire bats—How do they perform painless phlebotomy?—A bitter struggle against starvation—Hill Maya and plain Maya, both derived from archaic, but the latter, migrating to a new environment along the fertile coast, reached a higher state of civilisation, while the former, remaining behind, have altered but little—An ill-omened sleeping-place—Arrive in Punta Gorda—Muddy gets camp outfit wet in Carib dug-out—Reach ruins of Lubaantun by river—Find Lady Brown, Miss Herbert, Joyce, and Hedges residing in an ex-pig-stye—They say there is but little diminution in the scorpion and tarantula crop—A surprise for Joyce—Good clearing of ruins done during my absence in Copan—Money of little value to the Kekchi Indians—The egg the common unit of exchange—River shell-fish not appreciated as an article of diet, except by the dead—The Resumidero—A mysterious river—Absence of monkeys from British Honduras, the native and foreign explanations—Seven-foot alligator found dead in the Columbia branch not reassuring to bathers—Poisoning fish with *pati* vine results in diarrhœa for people farther down the stream—Miserable condition of old widows amongst the Kekchi—An escorpion lizard "drops in."

Our stay at Copan had been a very pleasant one, and from a scientific point of view entirely satisfactory, so that we were all rather depressed at having to separate and return to our respective jobs: Morley to Chichen-Itza, via Guatemala city, Lindsay, after a few more days in Copan, back to Guayaquil, and I to Lubaantun.

My last night in Copan was rather an uncomfortable one. I always slept alone at the ruins in order to avoid the thousand and one noises which seem to pervade a large Indian village at all hours of the night, though at mid-day it may be as quiet as the grave.

On this particular night I was aroused about 1 a.m.

by the sharp ping of a rifle, which sounded quite close, certainly within a couple of hundred yards of my cot. I sat up to listen, and in a few minutes the first report was followed by another, evidently much closer; moreover, I heard the passage of the bullet through the bush, uncomfortably close to my head.

I was taking no chances, with so many bandits around the district, especially as it was considered in the village that I was slightly crazy, preferring to sleep alone at the ruins, braving certain ghosts, and possible tigers and snakes, rather than enjoy the comforting proximity of my fellow-creatures. It was also known that I carried a considerable sum of money on my person. So I slid quietly out of my cot, with a pillow and a couple of blankets, and lay down behind the great stela, where there was quite a comfortable hollow in the earth, and where it would be almost impossible to locate me, except with a searchlight.

I heard a few more scattered shots, gradually growing farther and farther away, and then fell asleep.

Next morning I informed the Comandante de Armas what had occurred, but he said that no disturbance had been reported during the night, and the shots must have been fired by deer-hunters. I pointed out, however, that I had seen no deer-hunters' head-lights—moreover, deer are usually hunted at this time of year with a shot-gun loaded with slugs, when they come down to the valley at night to lick the salt ashes of the burnt corn plantation, while the shots I had heard were undoubtedly rifle-shots.

To this the only answer was the usual Latin-American one, "*Quien sabe?*" ("Who knows?")

Next morning, at 7 a.m., I left Copan for Zacapa with Muddy, Lizanaga, the two muleteers, and five cargo-mules.

We made the shore of the Copan river that night near the village of Jocotan, and, the weather being beautifully fine, and no flies to be felt, I slept on the open beach without a mosquito net. Towards morning I was awakened

by a stinging sensation on the inner side of my left foot, and, feeling rather chilly, pulled the blanket over me and went to sleep again.

In the morning, what was my surprise to find that the front of my pyjama-jacket and base of my neck were covered with dried blood, several small streams of which had also run down my foot and wet the blankets, and even a good-sized blob was adherent to the right side of my nose, while on the inside of my left foot were three, and by the side of my neck two, small round red spots.

I had been attacked during the night by blood-sucking bats. First, no doubt, on the foot, when, driven away from there by my pulling up the blanket, they settled on the side of my neck, and even tried my nose, but this cannot have been a very successful experiment, as, though large, it is rather desiccated and not at all vascular.

The extraordinary thing was how they managed to make punctures of such considerable size without causing me more pain, for the slight discomfort I experienced when I woke in the night was all I felt of their attack.

I was not the only victim of these blood-suckers, however, for nearly all our mules were caked with long streaks of dried blood, the result of these nocturnal operations. Muddy and Lizanaga, who slept in hammocks, were not affected, nor were the *arrieros*, who slept on the ground, wrapped in their blankets from head to foot.

I had never before, often as I have slept in the open all over Central America, been so savagely attacked by vampire bats, though I had seen horses and mules suffer severely from them—indeed, I had seen one actually adherent to a horse's neck, busily sucking its blood, yet apparently causing the animal neither pain nor discomfort, though how this painless phlebotomy is accomplished I am still at a loss to understand, unless the animal is furnished with some sort of local anæsthetic, which is injected with its needle-like teeth at the first puncture.

Next morning, making an early start, we pulled up about

mid-day for lunch at a hill Indian's little farm, near a place called Anchor. It was a wretched place, with mud walls and floor, and roof of grass.

The only fodder procurable for our mules consisted of the dried stalks of maize, upon which the Indians fed their own miserable stock exclusively.

Sitting by the side of the house, as I ate my lunch, pigs, dogs, fowls, and two small naked children gathered round me, fighting with each other for the few scraps of bread I threw them.

Everywhere were evident signs of a constant, hard, and bitter struggle by these Indians against sheer starvation, in which sometimes the Indian, sometimes starvation, came off victorious.

They must have been pretty nearly in the same cultural horizon as were their remote ancestors of the archaic period some four thousand years ago.

Their cousins, the Maya, were fortunate enough to descend to the coast lands, probably somewhere in the neighbourhood of Vera Cruz, some twenty-five centuries ago, where they exchanged the hard life, and constant struggle against adverse conditions, for the easy, well-fed existence of the Central American tropics, where the earth merely requires scratching to bring forth abundantly, where a bountiful nature provides plenty of fruits, nuts, and vegetables, only awaiting the gathering, and where the land gives tenfold the crop of corn and beans—their staple foods —given by the poor, hilly soil to which they and their ancestors had been accustomed for centuries.

Relieved thus suddenly of the constant struggle for bare existence, it was little to be wondered at that these lowland Maya, with ample leisure on their hands, soon began to employ it in the construction of those vast cities scattered throughout the area which they once occupied, now ruined and buried in the primeval bush, but still the wonder and admiration of such few travellers and archæologists as visit them.

Furthermore, they developed an art, a calendar, a knowledge of arithmetic—positional numeration was employed by them a thousand years before it was invented in the Old World—a religion, and a political system—something in the nature of an agricultural communism—all of which have seldom been surpassed amongst the nations of the world.

Their cousins, the hill Maya, however, descended from the same stock, but left behind in the old, unfavourable environment are still, as I have said, in almost the same cultural horizon as were their forbears of four thousand years ago.

I had meant to spend the last night before reaching Zacapa on the shore of the Zacapa river, quite close to the town, but on arriving there, just as the sun was setting, we could find neither wood for a fire, nor even sticks to prop up the mosquito curtain—and, after my experience of the previous night with the vampire bats, I had determined never to sleep unprotected again—so decided to push on to the city, further urged thereto by one of the *arrieros* pointing out that this was the exact spot where the corpse of a poor man had been found early on Good Friday morning who had been murdered for five Guatemalan dollars, or about eightpence, in his possession, and that this neighbourhood was the resort of *gente muy malo*, or "very bad folk."

We reached Zacapa late that night, and left next morning for the port, where, on arrival, we found that the baggage master at Zacapa had neglected to send on our boxes of films, plates, photographic and camp outfit, which we had registered through, and they could not now arrive before the next afternoon, while our boat for Punta Gorda departed the next morning at 11 a.m. I was determined, at any cost, not to spend a second night in Puerto Barrios, which probably holds the record as the most uncomfortable port in the world for travellers, so embarked the following morning on the little steamer which touched at Punta Gorda,

leaving Muddy to await the arrival of the missing outfit, and, if no other means of transport presented itself, to hire a Carib dug-out and join me at Punta Gorda.

Next morning it came on to blow heavily, and continued throughout the day, so that I began to feel exceedingly anxious, both for Muddy, and the films and plates recording the work done at Copan. For I knew these Carib dug-outs well; they will put to sea in any weather; their owners—more than half amphibious—if the boat turns over, simply right her, bail out, and jump on board again; but everything gets saturated with water.

Muddy arrived that evening, and my fears had not been unjustified, for, although she had not turned over, she had taken in so much water that the cargo was wet through; fortunately he had had the good sense to wrap the plates and films in oil-cloth, so that, being absolutely water-proof, they were unharmed; but the camp outfit—pillows, blankets, cot, and food—were saturated, and had to be spread in the sun to dry.

We were kept for three days in Punta Gorda, trying to get riding and pack animals for our trip to Lubaantun, but failed, as every animal in the town had been requisitioned by Government officials, who were taking advantage of the dry weather, and consequent good state of the trails, to visit the outlying villages and settlements of the district; we were therefore obliged to hire a small dug-out, in which, notwithstanding the low water in the Rio Grande and its Columbia branch, we made Lubaantun in two days without mishap.

I found Lady Brown, Miss Herbert (the private secretary), Hedges, and Joyce (the representative sent out by the British Museum to report on the advisability of an extended exploration and excavation project at Lubaantun), settled in the same old bush-house occupied by Lady Brown and Hedges the previous year, which, starting as a human habitation, had later been converted into a pig-stye, and was now again promoted to human occupancy.

The crop of insects did not seem to have decreased, as the number of scorpions slaughtered was somewhere in the twenties, though tarantulas were still in single figures, and one of the first sights I saw was a scorpion neatly pinned into a fold of Joyce's mosquito-net, in order that he might inspect, on his return from a visit to the ruins, the pleasant little bedfellow with whom he had unknowingly passed the previous night.

Lady Brown and Hedges had both been down with malaria, from which they were just recovering, while the latter had, I was told, turned an involuntary double somersault from the top of one of the stone-faced pyramids to a terrace forty feet beneath, and been picked up unconscious, but with no bones broken.

They had accomplished good work during my absence in Copan, having cleared all the old ground of last year, and a good deal more of the bush both to the north and south of the main group.

The term of office of our old friend, the Alcalde of San Pedro, had expired, and he had been superseded by another Indian, chosen by the free and independent Indian electors of the village. I found that he had utilised the boards I sold him last year from the floor of my little shack at the ruins to build a small addition to his bush-hut, instead of cornering the market in wooden coffins at the village, as had been his first intention. This little private room he retained exclusively for his own use, while his wife and family kept to the one-roomed, leaky-roofed old hut they occupied before.

Money appeared to be rarer than ever in the village, and change for even such a small coin as a twenty-five-cent piece was almost impossible to obtain, so, as we had neglected to bring up with us a supply of dimes and nickels, we found great difficulty in buying eggs, chickens, corn-cake, fruit, etc., and it was difficult to obtain enough change to pay for the small heads and broken figurines, for which ten cents each was the current price.

Amongst the people themselves purchase seemed to be effected chiefly by barter, the egg being used as the most convenient unit; so many eggs would buy so much corn-cake, rice, or cacao, while in larger commercial transactions sacks of beans and corn, or fat hogs, represented the currency.

Many of the people seemed to have almost forgotten the value of money, and to make change for a dollar bill was to them quite a complicated arithmetical problem, just as likely to turn out wrong as right.

When coming up the river I had noticed great numbers of the large, whelk-like, river shell-fish, some of them four to five inches long, all clustered together in the still, shallow water along the margins of the stream, and I found that they were all attached either to wild figs or the leaves of the wild fig-tree, which they were busily devouring. One saw thousands of these fig-leaves in the river, turned into skeletons by having the soft matter eaten away from between the tougher veins, and till I found these shell-fish feeding upon them, I used to wonder how it was that this was the only kind of leaf one ever saw denuded in this way.

The wild fig, when it drops into the water, floats high, and it is a mystery how such a sluggish creature can manage to get hold of a fig drifting on the surface, and anchor it at the bottom of six or eight inches of water, where it soon becomes covered by as many of his relatives as can get mouth-room upon it. Finding these shell-fish were such clean eaters, I tried some boiled, but the experiment was not successful, as they were soft and flavourless. The Kekchi Indians eat them, but not with any great gusto, and, judging by the enormous numbers of their shells discovered amongst the ruins, they formed a staple article of diet amongst the ancient inhabitants.

It must, however, be admitted that they were nearly always found as food offerings with the dead, and not on kitchen middens amongst other refuse of the living, which might indicate that, though considered suitable provision

for the departed on their long journey to the next world, they were not very highly appreciated as food by the living.

One Sunday, as the men were not working, I paddled up the Columbia to what is known as the Resumidero, about two miles above San Pedro, but a difficult two miles to navigate, for the river is an almost continuous series of runs and falls, over many of which the dug-out had to be laboriously hauled.

At this point the stream ends, or perhaps one might more properly say begins, for it disappears beneath a good-sized limestone hill, from the base of which the water—pure, clear, and cold—bubbles forth into a bath-like basin some 10 ft. long by 5 ft. across. This water overflows the basin in several places, and so forms the commencement of the Columbia branch of the Rio Grande. It is situated in a picturesque, rocky gorge, strewn with immense limestone boulders and bounded by high cliffs covered with maidenhair and other ferns, and topped by the primeval forest.

Within the basin are numbers of river fish of all sizes, though how they managed to enter—for it would have been impossible for them to have swum up the falls which lead to the basin—and on what they subsist are mysteries. If one moved one's arms violently they disappeared beneath the rocky ledge under which the water passes from the base of the hill, but it was impossible that they could be able to obtain any nutriment there, and they were obviously hungry, for they rose readily to a few bread-crumbs or a fly thrown on the surface.

There is always something extremely mysterious and intriguing to me in a river which disappears thus suddenly beneath the ground. One wonders whether it arises from springs in the bowels of the earth or starts its course on the other side of the mountain, somewhere in the unexplored country to the west of British Honduras.

I watched for long beside the pool, whose surface was in constant agitation, as if it were kept on the boil from some invisible fire beneath, hoping that some fruit or nut,

or even a leaf or twig, might be spewed forth, to give me an indication as to whether the river again ran in the open beyond the hill, and, if so, through what sort of country it passed—but no shred or particle, animal or vegetal, contaminated the purity of the clear, cold water, and I was forced to the conclusion that the Columbia branch actually took its origin in the bowels of the hill from the foot of which it arises.

On our way up we passed two good-sized natural mounds, the tops of both of which had been flattened for the erection of small mounds—probably sepulchral—which should afford material for investigation by future explorers.

We had not seen a single monkey or ape in the district, though across the frontier in Guatemala, only a few miles away, they are comparatively common; indeed, the only place in the colony, to my knowledge, where apes exist is near Yalbac, in the Cayo district, and there I understand they are becoming rarer and rarer every year.

It is a remarkable fact that, whereas to the north of us in Mexico, and to the south and west of us in Guatemala, monkeys are found in considerable numbers throughout the bush, in British Honduras they are conspicuous by their absence. Natives of the colony account for this curious occurrence on the hypothesis that the simian is influenced by family reasons in his choice of a habitat, finding a closer kinship between the natives in the republics and his own kind than he finds in British Honduras, whereas natives of the republics retort that all the anthropoids in British Honduras are gathered in the Carib villages along the coast.

This little international badinage, however, in no wise alters the very cordial *entente* which exists between the colony and all her republican neighbours, for they are all closely bound together by strong family ties of intermarriage, while their mutual prosperity depends to a great extent on free commercial communication, firmly based on unbroken friendly relations.

One of the most delightful experiences at the ruins was

the daily bath in the river, which afforded an almost ideal bathing-place, with its smooth, shaly ledges, deep pools, and delightful little runs and falls, for one not only wanted it but needed it, after a hot, sweaty day amongst the fine ash which covered the ground everywhere where the bush had been burnt, and got into one's boots, down one's neck, and all over one's body.

One advantage of this complete clearing of the forest by burning was an entire freedom from ticks and red bug, which were a constant source of annoyance during our first year's work on the ruins, and with them have also disappeared, to a great extent, over the cleared area, mosquitoes, sand-flies, and botlas-flies.

I often envied the women their single, short, kilt-like garment, and even more the children their complete nakedness, for one never felt so thoroughly comfortable and at ease as when taking a combined sun and spray bath in the altogether, under a little fall.

On our way up, about a mile below San Pedro, we came across a seven-foot alligator, evidently dead for some considerable time, as he was blown up by putrefaction to double his natural size, and smelt aloud to heaven. This discovery somewhat detracted from my pleasure in plunging into the deep, silent pools, for I had not before realised that alligators grew to this size so far up the stream, and though the Indians say they will never under any circumstance attack a man, still, one never knows; and when taking a swim the uncomfortable thought will obtrude itself: what if I should feel a sudden, agonising grip on one foot and an irresistible pull to the bottom?

Diarrhœa was very prevalent amongst the Indians in the village, and seldom did a morning pass without my having to treat two or three patients suffering from this complaint. They ascribed it to the fact that, higher up the stream, other Indians were fishing with *pati*, a vine, or liana, used to poison the stream, which had a narcotic effect on fish, and made them so sluggish that the men had no difficulty

in catching them with their hands. *Pati* is a very common vine in the bush, and the Indians cut great bundles of it, which they carry down to the riverside and beat against the rocks till the bark comes off, pouring water on the strips of bruised bark from time to time, and allowing the reddish liquid thus produced to run into the stream. The river fish are affected for only a short distance below the seat of operation, but, according to the Indians, human beings who drink the water are affected with diarrhœa and pains in the stomach for a long way down the stream. The fish, if left to themselves, soon recover from the effects of the drug, and are perfectly good to eat.

The women use a weed with long, lanceolate, pale-green leaves, which they call *mata-pescado*. or fish-killer, for the same purpose. They beat this on flat stones, till a greenish froth is produced, which is allowed to float away on the current. Small fish rise to this froth, and, becoming stupefied in the same manner as with *pati*, are easily caught.

There was a great preponderance of widows beyond the marriageable age in San Pedro, due probably to the fact that the life of the male—from exposure, alcohol, snake-bite, and accident—was so much shorter than that of the more protected female. These poor old creatures drag out a miserable and half-starved existence by going round to the houses of their more prosperous neighbours and helping in the household drudgery, more especially in grinding corn for tortillas, that heaviest and most essential of all Indian women's labours. For this they are paid in kind, with a few leathery corn-cakes, and perhaps an egg or two, which, with such poor food as they can manage to secure for themselves in the bush or stream, is all they have to keep the wolf from the door.

One morning, while paddling up to the ruins, I passed a poor old crone on a pebbly ledge by the river-side. Her chest was covered with great white scars, the result of a former extensive burn ; her face was repulsive to the last degree ; she was clothed in a single ragged garment around

her middle, and had a look of hopeless misery and disillusionment with life, yet wore around her neck a string of bright glass beads, probably the gift of some long-dead sweetheart or husband, who may once have found her beautiful. She was busily engaged in turning over the larger pebbles, and deftly scooping up the sand and water from beneath them into a small, round, flat, woven basket, from which she would every now and then pick out some small object and deposit it in a hollow gourd tied to her waist. I was greatly intrigued with these curious actions, and shoved the dug-out ashore to find out what she was up to. She was shrimping!

It appeared, though I had never been aware of the fact before, that beneath the larger pebbles dwelt a small red shrimp, which could only be captured in this way, though the technique was not acquired in a minute, as I found when trying it with the borrowed basket, for, much to her amusement, I never caught a single shrimp.

She had been at work for three hours, and the result of her labours was perhaps a hundred small shrimps, which, with some cold corn-cakes, were to provide dinner for herself and another old widow with whom she lived, who was just then suffering from an attack of malaria, and was not able to get up and fend for herself.

On my penultimate night at the ruins I was sitting reading, listening to the water dripping dismally from the thatched roof, upon which a continuous drizzle had been falling all day, evidently heralding the approach of the rainy season, when all work at the ruins has to cease. The end of April was exceptionally early for the rains to commence, but a prolonged drought such as we had enjoyed usually meant an early wet season. The first rains always drive a number of objectionable inmates to cover in the house—ants, scorpions, tarantulas, cockroaches, etc. On this occasion I heard a sudden "plop" on the clay floor, and knew some fairly heavy body—probably a small snake—had fallen from the roof.

Taking the electric torch, I made a trip of inspection, and within a couple of feet of my chair found what the Indians call an escorpion, a dirty, mud-coloured lizard, about 6 ins. long, quite different from the usual shiny-skinned, bright-eyed, alert lizard. This reptile was sluggish in its movements, while its skin was dull, as if it had been powdered over with dry earth, and just at the base of the tail were two lateral swellings which gave it somewhat an hour-glass shape.

I seized a stick to slay the intruder, but, slow as it was, it managed to crawl through a crevice in the stick wall, and escaped before I could effect my purpose.

The Indians say the bite of this reptile is extremely poisonous, but for this I cannot vouch, as I have never seen anyone who had been bitten. The reptile, at least in British Honduras, is a very rare one. I was glad, however, that it had not fallen on me and given me an opportunity of proving the point, one way or the other, in my own person.

CHAPTER XVI

Megalithic terraces to the east of the acropolis at Lubaantun, probably the oldest part of the ruins—Resemblance between Lubaantun and Cobā—The only stone sculpture at Lubaantun—Burial in a deserted house or beneath a stone-faced sub-structure?—A sentry-box sanctuary, containing food offerings—Complex system of walls, terraces, and platforms unearthed on the west side of the acropolis—Three distinct periods of occupancy, indicated by architectural remains at Lubaantun, all prior to coming of Europeans—Immense labour involved in quarrying, dressing, and transporting vast number of stones used—Nature of the tools employed—Sepulchral mounds, and objects buried with the dead—Hieroglyphic inscriptions found on pottery—Curious absence of arrow-heads and spindle-whorls—Numbers of clay figurines found decorating whistles—All "killed" when found—Extraordinary costumes and head-dresses worn by the ancient inhabitants—The art of caricature well developed—A hunting scene—The first ping-pong player—Figurines of women and their extraordinarily varied costumes and ornaments—Remarkable coiffures—An early Victorian and a nun—Figurines but serve to obscure our problem—Other large ruins found near Lubaantun the day before leaving; christened them Uxbentun—Report of even larger ruins of the same type at Pusilhā, just over the Guatemalan frontier, about thirty miles from Lubaantun—Ruins offer an almost unique opportunity for study of stratigraphy—Maya labourer's thoughts, instead of turning to love in the spring, turn to his corn plantation.

On the eastern slope of the citadel or acropolis at Lubaantun, at a point where last year I had noticed a course of very large blocks of cut stone, Joyce did a good deal of clearing, and exposed parts of three narrow terraces, constructed of immense blocks of stone, one 5 ft. in length, another over 3 ft. in depth. These terraces formed three steps of a gigantic stairway, the uppermost treader of which was 7 ft. 3 ins. broad, the middle 6 ft. 4 ins., and the lowest not yet completely excavated. The uppermost rise was partly

East Side of Acropolis (Megalithic Terraces at A.), Lubaantun [*p.* 218

broken away, the middle was 4 ft. 2 ins., and the lowest 5 ft. 3 ins. high.

The limits of these terraces, to the north and south, have not as yet been ascertained, as they were covered by an immense mass of stones and debris which had fallen from the pyramids above, and by the accumulation of centuries of vegetal humus. It would appear, however, that, while to the south they extended to the southern extremity of the acropolis proper, to the north they may underlie part of the cut-stone terracing of one of the great pyramids, in which case there can be little doubt but that they formed the oldest part of the ruins.

They resembled very closely the great stairways fronting the arena, in that the stones, though nicely squared in front, were irregular behind, and fitted like teeth in their sockets in the hard, rubbly material at the back of them, which both in the terraces and the stairways had at one time been covered over with cement.

The only piece of sculptured stone found by us in the ruins was brought to light in this stairway. It consisted of a human face, or rather mask, executed in low relief, upon the flat surface of one of the smaller stones. The face was poorly sculptured, and extremely crude in design. It was entirely un-Maya in type, and indeed so feeble an effort from an artistic point of view that it cannot be said to represent any type at all, resembling rather one of those stiff paper masks which children are wont to wear on Guy Fawkes' day.

This style of megalithic stairway or series of small terraces, whichever one prefers to call it, is unknown elsewhere in the Maya area. The nearest approach to it is probably to be found at Cobā, the city I recently discovered, as already described, in northern Yucatan; but here, although the individual stones were nearly as large, and the treaders were as broad, the structure was unmistakably a gigantic stairway, whereas at Lubaantun the great height of the risers rendered it unsuitable for such a purpose.

The presence of a single crude stone mask as a decorative element upon this otherwise well-proportioned and imposing structure was difficult to explain. From the position of the block in the Terrace it would appear that it had been sculptured before it was built in. The fact that it shows evident traces of stucco proves that it does not belong to the later periods, when stucco was never used. This point of view is supported by the fact that the terrace had been covered over by another skin of masonry in order to provide a foundation for the two adjacent pyramids.

The little platform, faced with cut stone, situated on the western summit of the great terrace to the south of the main group, was completely dug out. Last year we had found a number of burials in the earth and stones covering the top and sides of this, accompanied by small broken figurines, discovered in such great numbers throughout the ruins, together with conch-shells, beads, spear-heads, and other objects.

In the centre were now found some small jadeite articles, and Joyce is of the opinion that this was originally a stone-walled house, the single room of which had been filled in with earth and stones, similar to one dug out by me on the Rio Hondo, where the owner had been buried beneath the floor of his house, over which a small mound had then been constructed.

It is, nevertheless, quite possible that the owner may have been buried within the platform upon which his wooden house stood, and the platform converted into a conical mound by having earth and stones heaped up on top of and all round it. On the west side of the acropolis considerable excavation was done, exposing some entirely new structures close to the main wall.

A small altar, or shrine, closely resembling a sentry-box, had been built up by the people of some later occupation against the original wall of the citadel. Its walls, constructed of cut stone, were 2 ft. $2\frac{1}{2}$ ins. thick, and enclosed a tiny chamber, 4 ft. 6 ins. high, 3 ft. broad, and 2 ft. 10 ins.

Southern Grand Stand, Lubaantun, as we Left it

As we Found it less than Ten Months Later [*p.* 220

deep, the roof of which was formed by large flat flags of shale.

A wall was built up at the back of the little chamber, almost to the roof, leaving a shelf or recess at its top. In this were found the bones of deer and peccari, or wild hog, fish vertebræ, the inevitable river shell-fish, and crab claws, evidently a food offering—but whether as a provision for some individual buried in the vicinity, for the journey to the next world, or as an offering to some god, it is impossible to determine until further excavation has been accomplished.

At a distance of seventeen feet from the main wall another terrace was exposed by digging out the earth and shale rubble with which the space between it and the wall had been filled in. This terrace was uncovered for a length of thirty-two feet. It was approached by two steps, built of nicely-squared blocks of stone, and was 2 ft. 8 ins. high. Its northern extremity was not completely exposed, but its southern extremity took a sudden bend at right-angles to the west, where it was continuous with another similar terrace, running north and south, which was exposed for a distance of twenty-two feet. Fourteen feet from the northern extremity of this last terrace a wall ran east to join the main wall of the acropolis.

To the west of these terraces, at a point nearly opposite to the little sanctuary standing against the main wall, an excavation was made beneath the rubble and stones, where, at a depth of seven feet below the surface, the wall of a further terrace, approached by three steps and built of nicely cut stones, was brought to light.

This had evidently been the original boundary terrace, to the west of which a high stone wall had been constructed later, the space between the terrace and the wall being filled in with stones and rubble to form an extra court, or open plaza.

In the small space on the west of the acropolis, which was all that the time and labour at our disposal allowed us to

excavate, a most complicated system of walls, terraces, and courts was brought to light, indicating in this spot alone at least three distinct periods of occupation.

It would appear, indeed, that to the original core of the acropolis, possibly represented now only by that part of it which was bounded by the megalithic wall, successive occupants added courts, plazas, and terraces, covering in the work of their predecessors with shale rubble and boundary walls, but rarely destroying this work completely, then building new structures of their own on the spaces thus obtained.

The original structure must, in fact, have undergone constant change, the net result of which was an expansion in all directions, and an addition both to the size and number of its plazas, courts, terraces, and pyramids.

Three main architectural periods could be traced distinctly, the earliest of which was probably represented by the megalithic structure forming a great part of the eastern boundary of the acropolis.

These three periods, on extended excavation, will probably admit of further sub-division, and will all be found to date to a period prior to the coming of Europeans.

That the city was occupied after the Conquest, however, the contents of some of the graves which have been opened, and small objects picked up by Indians in making their plantations, proved beyond a doubt.

The shale rubble used as a filler was easily obtainable, as it is the formation underlying the humus throughout the whole region, but where the fine hard limestone blocks, which face most of the terraces and pyramids, were obtained, we have not as yet been able to ascertain, as no limestone quarry has, up to now, been discovered. Yet it could not be at any great distance from the ruins, otherwise the labour of transport of such an immense mass of stones would have been too great an undertaking for even the large population which one must postulate as inhabiting Lubaantun in ancient times, unacquainted as they were with any but

KEKCHI CHILDREN AT LUBAANTUN

EXCAVATIONS W. OF THE ACROPOLIS, LUBAANTUN [p. 222

the simplest and most primitive mechanical devices and means of transport.

One of the most interesting problems which presents itself in connection with these ruins is, how did the builders manage to dress, accurately and beautifully, the hard blocks of limestone—so evenly that no mortar was used in the construction of any of the terraces or pyramids—with only stone tools available?

We found a single small bronze celt, which was probably brought in from the south, in barter, at a very late period, and would not in any case have been a suitable tool for dressing stone.

At the ruins of Copan innumerable greenstone chisels and axes of all sizes were found lying about the ground in the neighbourhood of the ruins, some whole and freshly sharpened, others obviously rejects, either because a great wedge had been chipped from the cutting surface, or because repeated sharpenings had worn the tool down so short that it was practically useless; and there can be little doubt that these were the tools with which the wonderful carvings on the monoliths and temples at the city were executed.

At Lubaantun these same chisels and axes were found, but in much smaller numbers, together with a comparatively small number of flint hammer-stones; and we must I think admit that, inadequate as they appear to us, these were the only implements used by the builders in dressing the vast numbers of stones which were employed in the construction of this great mass of ruins.

Excavations were made at two points in the floor of the arena, and it was found to be composed of tightly packed rubble. As elsewhere in the Maya area, this had probably been covered originally by a compact layer of limestone dust, which, beaten down tightly, formed a hard, smooth, cement-like floor, now completely weathered away.

During the short field season we excavated a considerable number of sepulchral mounds around the ruins. On clearing and burning the bush in all directions, vast numbers

of these mounds were brought to light; indeed, the entire neighbourhood of the ruins appeared to have been one vast graveyard, and it would seem as if successive occupants had buried their dead as near the sacred buildings as was possible, while the people of the last, or post-Conquest, occupation, had actually used some of the pyramid tops of the ruins themselves for this purpose.

The human bones, which for the most part had been buried in earth, were, as one might have expected from the damp, rainy climate, and their unprotected position close to the surface, in a very poor state of preservation. No entire cranium was recovered, which is extremely regrettable, as the shape of the skull, and possible deformation practised, would have been extremely useful in giving us some idea as to the period in Maya history to which the builders of the ruins belonged, and the branch of the race which they represented.

The objects found buried with the dead included ornaments, such as beads of shell, stone, jadeite, and clay, ear-plugs, gorgets, and a wristlet of shell; weapons and implements, as greenstone axe-heads of all sizes, flint spear-heads, obsidian knives, and broken cores, hammer-stones, and great quantities of broken corn-rubbing stones with their rubbers, made for the most part of what is known as Esquipulas stone—a hard, porous, volcanic rock, extremely well adapted for the purpose.

A single small copper celt was found, and an eccentric-shaped flint, in the form of a leaf-shaped spear-head, having conical projections round its edges. This latter, unfortunately, was broken, but was extremely interesting, as it linked the builders of these ruins up with the other Maya, who, from one end of the Maya area to the other, and probably from the earliest to the latest days of their civilisation, were in the habit of manufacturing these curious objects, as to the use of which there has been so much controversy amongst archæologists, though this, unfortunately, has left the matter precisely *in statu quo ante*.

Food offerings were found in great abundance, both accompanying the dead and as sacrificial oblations to the gods. These included the bones of mammals, deer, peccari, etc., birds, and fish, with river shell-fish and crabs.

Enormous quantities of potsherds were unearthed, mostly of the crude domestic variety, but a few of finer ware nicely painted in colours, and some of black ware. Part of a good-sized pottery plaque, ornamented with geometrical devices in low relief, was discovered, together with fragments of smaller plaques, upon two of which were stamped hieroglyphic inscriptions.

The Maya month Chen, with a numerical coefficient, was to be distinguished upon one, and upon the other four, unknown hieroglyphics, each with what appeared to be a numerical coefficient in front of it. Reading from left to right, they were: a bar and four dots for 9, a bar for 5, and two zero signs.

One curious find was the perforated handle of some large flat implement of stone, probably a *comal*, used by the Maya for the last two thousand years for baking their corn-cakes over a wood fire. These, although every household must have possessed an article of such constant domestic use, were for some reason exceedingly rare. Whole ones were practically unknown, and I only know of one occasion on which they have been found, i.e. in a pit within a large cave at Benque Viejo, associated with a great number of other domestic pottery utensils of all sorts and sizes. Amongst the ancient Maya, and up to quite recently, they were usually made of pottery, rarely of stone, but of late years the more fragile materials have been almost entirely superseded by iron in the manufacture of these utensils.

The absence of two objects usually found in great abundance around all old Maya sites was remarkable at Lubaantun. I refer to small flint and obsidian arrow-points, and malacates, or spindle-whorls of clay or stone. Both of these were indestructible, easy to manufacture, of no great intrinsic

value, and must constantly have been lost, yet at Lubaantun they were of rare occurrence.

It is, of course, possible that the malacates used by the former inhabitants were all made of some hard, heavy wood, as they frequently are amongst the modern Indians, in which case they would have perished completely, leaving nothing behind.

It is also possible that they may have been unacquainted with the use of the bow and arrow, employing only the throwing-spear and sling in hunting, and the numbers of flint javelin-heads and small stone balls—probably used as ammunition for slings—would lend some probability to this hypothesis.

So far as we know, the Maya of the Old Empire had not learnt the use of the bow and arrow, but it is almost inconceivable that all occupations of Lubaantun came within what is usually known as the Maya Old Empire, i.e. prior to the end of the sixth century A.D.

Both during the present field season and in 1925 the most interesting objects we found at Lubaantun were the clay figurines, enormous numbers of which must have been manufactured by the former inhabitants, for they occurred not only amongst the ruins themselves, buried superficially by the vegetal mould which has accumulated during the centuries which have elapsed since they were left there, but in almost every one of the burial-mounds, with which the ruins are completely ringed.

Indians who have cleared and burnt the forest, for the purpose of making their corn plantations, pick up dozens of them, lying on the surface of the ground, or buried superficially, just as they had been abandoned.

In only two respects were all these curious little clay figurines alike: firstly, they were invariably moulded on to the fronts of whistles, and secondly, they had all been deliberately broken before being abandoned or buried with the dead.

The whistles which they ornamented were usually of one note, but in some cases three notes could be produced upon them by stopping up one, or both, of a pair of holes which pierced the whistle above the mouthpiece.

If they were only found buried with the dead, or employed as votive offerings to the gods, it would be easy to understand why they were invariably broken, for the idea of breaking, or "killing," offerings of this kind seemed to have been prevalent throughout the Maya area from the earliest to the latest times, but why those which had merely been abandoned, or lost on the surface of the ground should also have been treated in this way is difficult to comprehend.

All these little objects were moulded, and one occasionally came across broken fragments of the clay moulds in which they were cast, but these were naturally much rarer than the whistles themselves, and were also invariably broken.

They seldom stood over 4 ins. high, and were often less than 2 ins. Most of them portrayed the head-dresses and costumes worn by the men and women of the period. They included people of all ranks, from those of the working-class to priests, rulers, nobles, and sometimes gods, as a very pretty little head of the sun-god was discovered, with the usual snake-like nose ornament, filed teeth, and extremely high, elaborate, rayed head-dress.

But perhaps the most astonishing thing about them was the extraordinary diversity of costume and objects of personal ornament which they appeared to indicate. Practically no two people seemed to have been dressed alike, the coiffures and head-dresses being especially elaborate and diverse—indeed, a stroll through the city, in the days of its greatness, must have been somewhat like a visit to a Covent Garden fancy dress ball.

Nor were the aboriginal inhabitants without a sense of humour, as exhibited in caricature, as the hook-nosed individual shown in Fig. 13, the immensely wide mouth and goggle eyes possessed by Fig. 15, and the fatuous face and

open mouth of Fig. 4 will indicate. Is it possible that megalithic architecture goes with a sense of humour, as exhibited in caricature?

Joyce pointed out the resemblance between these heads and similar heads from Peru, the makers of which also constructed megalithic buildings.

Two fragments were found of what must have been a very spirited little scene, showing a man delivering the *coup de grâce* to a deer with a stone knife. He had probably first brought the animal down with a throwing-spear, then rushed in and completed his work with a knife thrust in the neck. Both these fragments were obviously from the same mould.

One of the commonest human figures is that shown in Fig. 9, wearing a curious visor-like object across the face, with oblong holes through which to see.

Fig. 10 holds between his legs some large, flat, circular object, which may be either a drum or a *comal*.

Fig. 12 is a fat, jolly-looking individual, with a large round face and prominent abdomen. He appears to be wearing one of those quilted cotton breast-plates so commonly in use amongst the natives, which, when soaked in salt and water, were nearly spear- and arrow-proof, though they offered but poor protection against the Spaniards' fusiles, as the natives frequently found to their cost.

Fig. 14 shows a curious little anthropomorphic figure, with an animal head and very prominent genitalia.

Fig. 11 represents a female, in a garment worn high at the neck and constricted at the waist, with long, tight sleeves and a skirt reaching to the ankles. Round her neck is a string of three large beads, and the whole is almost suggestive of a mid-Victorian costume.

Figurines of women, though not so common as those of men, were frequently encountered, and the variety of costume worn by them was remarkable. Some were dressed in tight, corset-like garments, reaching above the breasts, others were naked to the waist, while others again were

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clothed in the loose, sleeveless *huipil* commonly worn by the northern Maya.

Fig. 8 might almost portray the first ping-pong player, as he holds in his right hand a short, club-like object upon which is balanced a large round ball.

In nothing, perhaps, so much as in the head-dress is the extraordinary diversity in costume amongst these figurines noticeable. Fig. 1 wears a human head as head-dress. In Figs. 6 and 7 the hair seems to have been twisted into elaborate and complicated rolls on top of the head, or possibly these rolls may be composed of some material such as cotton or henequen. In Fig. 5 is seen an immense object like a coiled serpent, worn on each side of the face. Fig. 2 probably represents a female. She wears a calm and austere expression, and her chin is swathed in a fold of cotton cloth, similar to that affected by some orders of nuns. The head-dress of Fig. 3 is strongly suggestive of a barrister's wig.

These little figurines, far from affording us a clue as to the builders of the ruins, rather tend to obscure the matter than otherwise, for, while many of them are essentially un-Maya in costume and ornament, several others show such a strong resemblance to similar objects found in cities of the Maya Old Empire that it is impossible to avoid the conclusion that the two must have been contemporaneous, and that there existed in the past free communication between Lubaantun and the Old Empire cities.

I have in my possession whistles from Naranjo and Copan, cities of the Old Empire, so like those from Lubaantun that one might well suppose that they originated in that city.

Now Naranjo and Copan flourished during the fourth and fifth centuries A.D., and yet two little figurines were picked up at Lubaantun, one of a horse, the other of a gnome-like being, both showing obvious European influence and obviously dating to post-Columbian times. The majority of the figurines, however, were more suggestive of Alta Vera Paz or Guatemalan origin, and it would appear that, at

least during some period of the city's history, it was occupied by Indians from that neighbourhood.

Two days before leaving San Pedro I was told by an Indian of the existence of extensive ruins situated in the bush about two or three miles from Lubaantun. Rumours of this kind usually turn out to be mares' nests, but, unless one investigates them all, one is apt to miss the grain of wheat in the bushel of chaff, and so never get anywhere. I determined accordingly to devote my last day to the investigation of this report.

Starting in a dug-out soon after dawn, we paddled up the Columbia branch, almost due west, for a little over an hour, then, landing on a shaly ledge, entered the bush in a direction slightly west of north. There was no trail through the jungle, so I sent three men ahead with machetes to cut a picado, and followed them slowly. We walked for a little over half an hour, the track ascending all the way, and then arrived at the first structure of what proved to be the new site, a small pyramid faced with blocks of cut stone, exactly in the Lubaantun style, but in a very much poorer state of preservation than those we already knew.

Cutting blindly through the bush in various directions, we came upon numbers of these pyramids—in fact, we were evidently in the midst of another ruined site similar to Lubaantun, but so overgrown by dense bush, and so covered by the accumulated vegetal humus of centuries, that it would be quite impossible to hazard an opinion as to its extent.

It may be stated, however, that the masonry was cruder than at Lubaantun, and the stones not so carefully dressed. The pyramids were in a far more ruinous condition, and appeared to be older than those of the latter, though evidently erected by the same people, for the style of architecture was almost exactly identical.

We observed two types of stone-faced pyramids, those built of small worked stones with rounded corners, and those of very large stones—some over 3 ft. in length—with angular corners.

The ruins were higher than those of Lubaantun, and a magnificent view of the whole surrounding country could be obtained from parts of the larger structures. I christened the new site Uxbentun, or Ancient Stones, as it appeared to be of greater antiquity than Lubaantun, and it is necessary to have some name by which to designate ruins, if they have not already got any local name.

The further exploration of this new site will have to be undertaken, if an extensive programme of excavation at Lubaantun is to be carried out, and it is a great pity that news of its existence did not reach us in time, at least, to cut farther through the bush and obtain some idea of its extent, for as the rains were upon us, and we had all arranged for our departure down the river, it was impossible to do anything along these lines till the next dry season.

I had heard vague rumours amongst the Indians of the existence of ruins at a place called Pusilhā, to the west of a village named San Antonio Viejo, or Old San Antonio, which latter is almost due west of the village of San Antonio, situated nine miles from the ruins of Lubaantun.

On consulting the latest ordnance map of the Republic of Guatemala, I discovered that the village of San Antonio Viejo was marked as on the British Honduras side of the frontier line between the two countries, though it has always been under the jurisdiction of the Comandancia of San Luis, in Guatemala; but there was considerable doubt as to the exact location of the western boundary, the lines of which, in this part of the colony, have never been accurately surveyed.

According to the map, the village of Pusilhā is distant but twenty-four miles from Lubaantun, yet the Indians told me that it was two good days' ride, which indicated either that the map was inaccurate or that the road was extraordinarily tortuous or difficult.

The name was a curious one, being derived probably from the Maya words *pus* (to stink) and *hā* (water), and meaning literally " stinking water."

The Indians were always extraordinarily reticent in giving information about ruins, partly because they were afraid of being asked to act as guides to them, and partly because they object to strangers on general principles, but, from what I was able to gather before leaving Lubaantun, it would seem that these ruins were of considerable extent, and were situated at some distance from the present village of the same name.

It is most essential that they should be thoroughly explored, as they may afford some clue to the mystery which at present veils the date, the history, and the builders of Lubaantun, and, above all, may furnish a readable Maya Initial Series, which would at least give us the period to which Lubaantun belongs.

The present short field season at Lubaantun had, in some respects, been a disappointing one, as no sculptured monuments were brought to light and no dates discovered. The excavation, however, both to the east and west of the southern part of the acropolis disclosed some very interesting and important facts. That to the east exposed the megalithic wall, which, like the arena, was a new feature in Maya architecture. That to the west disclosed an extraordinarily complicated system of terraces and walls on the outer side of the acropolis, which had been covered in with shale, rubble, and stones.

It became evident that the whole of the oldest part of the city was buried beneath the structures erected by at least two later occupations. Fortunately, the later occupants in neither case appeared to have entirely destroyed the work of their predecessors, which in some instances they left almost as they had found it, simply covering in the buildings with shale rubble to form a foundation for new plazas, courts, and terraces of their own; and even where they had partially destroyed the upper parts of buildings the lower parts of the walls and cement floors had almost invariably been spared.

The result of this curious method of erecting new

structures on top of those already in existence, by simply filling in the cavities with shale rubble, was that the older parts of the city had been preserved to a great extent intact, beneath and completely concealed by the newer erections.

On this account the ruins offer an almost unique opportunity for studying the different styles of architecture employed by the various occupants, and should also afford valuable stratigraphic evidence as to their pottery, implements, weapons, and ornaments.

The great difficulty to be encountered in a thorough and intensive excavation and exploration of these ruins is the vast mass of dressed stone and rubble which would, of necessity, have to be removed before the structures of the oldest occupation, and artifacts buried in them, could be exposed.

This work, however, tedious and costly as it would necessarily be, would be well worth the undertaking, for not only would it throw light on the history of the various peoples who inhabited these ruins in ancient days, but, as every indication seems to point to its having been continuously occupied from early Maya days up to, and probably after, the Spanish Conquest, it should afford some information as to the origin of the Maya, the relationship between their various branches in pre-Columbian days, and possibly even on the development of the calendar and hieroglyphic systems, for amongst the few hieroglyphics discovered moulded on pottery at Lubaantun several were new to us.

The field season was an exceptionally short one, active work at the ruins being carried on for less than six weeks, and the labour employed chiefly local native Indians, from the village of San Antonio. These men are, at their best, but indifferent labourers compared with negroes, for, owing to their innutritious diet, poor physique, and unaccustomedness to hard and continuous labour, they are not able to do a fair day's work at such heavy toil as the use

of pick, shovel, and wheelbarrow in moving great masses of rubble and masonry involves. Furthermore, the only season during which it is possible to live and work at the ruins is the dry season, i.e. the months of February, March, April, and May. Now, during these months most of the Indians are employed either in felling the bush to make their corn plantations, in burning it off, or in planting the corn, and these operations are to them communal ceremonial picnics, which no consideration on earth would induce them to forgo; so that, although an expedition may start with thirty labourers at the beginning of February, in a few weeks' time these will probably have dwindled to six, and if one asks for an explanation, the invariable answer is, "*Pues, señor, fueron a trabajar en sus milpas*" ("Well, sir, they have gone to work in their *milpas*"), as if that fact explained and condoned everything.

Then, after the lapse of another week or two, perhaps a couple of dozen men will turn up, work for a few days, till they have accumulated enough for a respectable spree, and then quit, leaving behind them nothing but the old excuse of the *milpa*.

As a matter of fact, any one of our Indian labourers could have earned as much in one month's continuous work at the ruins as his *milpa* would have produced for him in the whole year; in other words, one month's labour would have sufficed to keep him in corn, beans, rum, and idleness for the rest of the year. But the communal clearings and plantings of the *milpas*, with their attendant gossip, light desultory labour, and gorges on pork, chickens, and eggs, are more than any Indian can withstand. The spring is in his blood, and being but feebly sexed, and almost completely lacking in sensuality, his thoughts, instead of turning to love, turn to the *milpa*, whither his steps turn also, charm the archæologist never so wisely with offers of high wages and promises of bonuses for every unbroken find.

Modern Maya Girl of Chichen-Itza

Drawn by Jean Charlot. Compare with profile on Old Empire Stela

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CHAPTER XVII

Maya generally supposed to have been a homogeneous race throughout the Maya area—Probable origin of the Maya from the archaic, or highland, civilisation—Upper and lower class of Maya two separate races, as shown by sculptures and figurines—Maya girl from modern Chichen-Itza closely resembles her ancestors of the New Empire of a thousand years ago, and of the Old Empire of nearly two thousand years ago—Figurine of Copan girl of A.D. 500 might well pass for a portrait of modern Copan Indian girl—Type found on monuments at Copan absent from the present population—Monuments show almost incredible deformation of some of the heads, which is proved to have existed by discovery of extraordinarily flattened skulls in northern Yucatan—Why the Maya left the Old Empire cities—Brachycephalic skulls of the New Empire Maya—Stucco face from British Honduras might pass as a noble of the Old Empire or an aristocratic Maya of to-day, and probably is the descendant of the first and the ancestor of the second—A type common in the towns of Yucatan—The Toltec conquest of Chichen-Itza—The extent of the Toltec penetration into Yucatan—Introduction of war, and Toltec religious influences—Causes of the fall of the Maya New Empire—Toltec portraits from Chichen-Itza—Toltecs and Romans compared—Mayas of late New Empire of mixed blood—Did the Caribs reach the Maya area?—Curious mixture of pure Maya and Chinese during the mid-nineteenth century, the result of which, from a eugenic point of view, proved disastrous.

It has been generally supposed that during the period usually known as the Old Empire (i.e. prior to the end of the sixth century A.D.) the Maya area, comprising southern Mexico, Yucatan, Guatemala, and British and Spanish Honduras, was occupied by but a single race—the Maya—that on their arrival in the country, an unknown number of centuries before the commencement of the Christian Era, they had found it unoccupied by any previous comers, and had thereupon settled down to build up their wonderful autocthonous civilisation, and to develop their calendar system, astronomical science, art, architecture, and religion, all incomparably the highest and most advanced of their

kind known amongst any of the aborigines of the New World, and in many respects comparing favourably with those of the Old World at the same period.

The Maya were, it is believed, originally descended from a highland people who occupied the elevated plateau between Mexico and Peru about the second millennium B.C. A branch of these, whose descendants were later to found the great Maya Empire, migrated to the lowlands, somewhere in the neighbourhood of Vera Cruz, during the first millennium B.C.

Now it seems not at all improbable that other bands of these archaic highland people had at various times, and different points, descended to the more fertile lowlands, and there formed the nuclei of civilised communities, and it may well be that the Maya, when in their march southward they reached Honduras and southern Guatemala, found these regions already occupied by the descendants of other branches of the archaic people who had arrived there by a more direct route than themselves. Following the usual correlation of might and right, the Maya would, no doubt, at once have proceeded to conquer and dispossess these aboriginal possessors of the soil of their territory, and later to enslave them; this would account for the sculptures on the monuments representing Maya warriors standing upon bound captives, obviously, from their features, belonging to an alien and inferior race.

More extended study of the Maya, especially of their sculptures in stone, figurines in pottery, skeletal remains from the ancient graves, and modern descendants, cannot fail, I think, to convince one that there were at least two separate and distinct races involved; the one, the ruling race, to which belonged the kings, nobles, and astronomer-priests, depicted upon the monuments throughout most of the larger ruined cities of the Old Empire, the other the workers or slaves, by far the more numerous, who, under the dominion of the ruling class, built those gigantic cities throughout this part of Central America, with their palaces

GREENSTONE MASK, SHOWING SHORT-NOSED, BROAD-FACED, THICK-LIPPED TYPE. PETEN [p. 236

and temples, courts, plazas, and sculptured monoliths, whose ruins, now buried in the depths of the primeval forests, are the wonder and admiration of all who have had the privilege of visiting them.

The faces of the priests and rulers are quite familiar to us sculptured on the monoliths of Copan, Quirigua, Naranjo, Tikal, and Yaxchilan, and moulded in stucco at Palenque and other cities.

Considerable variation may be noticed amongst them, depending on the skill of the artist, the material from which they had been sculptured, and the period to which they belong; but, generally speaking, the type is fairly uniform throughout; the nose is Roman and narrow, the chin and brow somewhat receding, and the lips very prominent, the lower lip often protruding well beyond the upper.

The stelæ from Copan show this type of face, and the outline of a head from one of the monuments at Ixkun exhibits it in profile. The type is found from one end of the Old Empire to the other, and in the majority of the cities is the only one handed down to posterity, for it must be obvious that, no matter how greatly the workers might outnumber the ruling classes, the heads of the former would never occupy a prominent position upon the sculptures.

Descendants of the ruling class, both of Old and New Empire times, are still to be found in considerable numbers amongst the northern Maya of to-day, many of whom have pure Maya blood in their veins.

In some cases the names of the great New Empire noble families are still retained as surnames, and Cocom, Xiu, and Chel are still names frequently encountered amongst the Indians of Yucatan, and seem even to give their bearers a certain standing and prestige amongst their own people.

The head of a modern girl from Chichen-Itza might very well pass for that of one of her ancestors of the New Empire who lived a thousand years ago, possibly within a stone's throw of where now stands her palm-thatched, mud-floored hut, or an even remoter ancestor of the Old Empire of

two thousand years ago, whose face adorns, perhaps, one of the monoliths of Palenque or Yaxchilan.

The low forehead, thin, well-cut, arched nose, curiously prominent, almost pouting lips, slightly receding, yet full, chin, are all as characteristic of the modern well-bred Maya as they were of his or her ancestors one or two thousand years ago.

Unfortunately, as they were buried without any special precautions with a view to the preservation of the body, the passage of nearly two thousand years has almost entirely destroyed the skeletons and crania of the Old Empire, which would have given us an accurate conception of the shape and capacity of the skull and facial contours.

The worker or slave class appear to have belonged to an entirely different race from that of the ruling class. Whether they were the aboriginal inhabitants of the country who were conquered by the Maya when they first took possession, or whether they belonged to less civilised tribes living to the south, who migrated north into what afterwards became the Maya area and were at a later date conquered by the Maya, it is now impossible to say. The fact, however, that on many of the stelæ bound captives are represented as lying, or squatting, beneath the feet of the chief persons represented in the sculpture is fairly conclusive evidence to my mind that in most cases the Maya had to conquer and oust the original dwellers before settling down to the erection of their cities of the Old Empire.

Their most prominent facial characteristics were broad, rather flat, faces, large mouths with thick lips, somewhat prominent chins, eyes not infrequently a little oblique, and nose broad, short, and slightly retroussé.

Excellent examples of this type are seen in the clay figurine of a woman from Copan, in Honduras, found in the vicinity of the ruins, the greenstone mask found in northern Peten, and the two heads of captives, represented as bound with ropes beneath the feet of two rulers, from a stela at Ixkun, in the Peten district of Guatemala.

Modern Copan Woman: May be Compared with Type 1,500 Years Old; a Figurine from Ruins of Copan

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This type is still very common amongst the Indians in the neighbourhood of Copan, and, in fact, amongst all the highland aborigines living in this region. These Indians are a good deal darker in colour than the northern Maya, less intelligent, and culturally very much lower in the scale. The photograph of a modern Copan Indian girl may be compared with the clay figurine of the girl of fifteen centuries ago, and it will be seen that there is a strong resemblance between the two.

I was able to pick out at least two other women in whom the likeness to the figurine was so startling that they might have sat for it; unfortunately, however, these refused point-blank to sit for their photographs, having, as ill luck would have it, caught me in the act of surreptitiously comparing their profiles with that of the figurine, and not relishing its implied resemblance to their own.

The type seen on the monoliths at Copan is entirely absent from the present Indian population, and it is not improbable that at the time of the great Maya exodus from this region, about the end of the sixth century, all the ruling class were amongst the emigrants, and those left behind consisted exclusively of the working class, and probably the dregs of this, as naturally the rulers would have taken the best of the workers with them, which would account for the fact that the artistic and architectural life of the city practically ceased after the exodus.

No more buildings were erected, no new sculpture attempted, no time-markers put up, and so, deprived of its priests and rulers, and of all religious and artistic stimulus, the great city gradually sank to what it is to-day—a village inhabited by poverty-stricken, uneducated, unambitious Indians, whose chief aim in life is to provide sufficient food to fill their stomachs and clothes to cover their nakedness.

Another example of the broad-faced, flat-nosed type is exhibited by the bust of a woman found by Franz Blom in 1925 near the ruins of Palenque, and now in the Tulane University Museum. She wears around her

neck a double string of large beads, and exhibits tattoo marks extending outwards from the side of her mouth. Her breasts and the upper part of the abdomen are covered by a curious apron-like garment, apparently held in place by sleeves which cover the upper arms only. This is the sole instance in which I have come across this type of garment, either in the figurines or sculptures, and it must have considerably retarded any movement of the arms.

It will be seen that this broad-faced type is encountered from one end of the Maya area to the other, from Palenque in the north, through Ixkun and Menchè, to Copan in the extreme south, and indeed it must have been universal throughout the whole area, for without the slave class it would have been impossible for the Maya to have carried out the gigantic architectural works the ruins of which now cover the country.

A third type of head is found amongst the Old Empire cities, chiefly at Menchè and Palenque, in the former sculptured on stone, in the latter moulded in stucco. This type exhibits an extraordinary deformation practised upon the skull, at a very early age, before the sutures had begun to ossify or the fontanelles to close.

In the case of the Menchè head the deformation is so extreme that practically no forehead remains at all, and one has to go to Peru to find a parallel for such an excessive flattening of the cranial vault from above downwards—indeed one wonders how it was possible for a brain so displaced and deformed to function normally. In the head from Palenque the deformation is not perhaps so extreme.

I hesitated for long to believe that these heads were actually drawn from life, preferring to think that they were merely exaggerations of much admired characteristics in highly placed individuals, just as ladies of the Georgian period are nearly always represented with ridiculously tapering fingers, and horses of the same era with immensely thick necks and narrow, pointed noses. But the discovery of two skulls in northern Yucatan, one of which is seen in

OLD EMPIRE SCULPTURE
FROM MENCHÉ

OLD EMPIRE SCULPTURE
FROM PALENQUE

SKULL FROM MAYA AREA; EXTRAORDINARILY FLATTENED TYPE

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the photograph, entirely dispelled this notion, for it will be observed that the deformation brought about in this skull, by pressure on the top of the cranium, is fully as marked as that seen in the head from Menchè, and more so than in the Palenque head; furthermore, the protuberance in the frontal region, just behind the orbits, is present, and quite marked in all three; indeed such a skull as this, if furnished with a well-developed lower jaw and clothed again in flesh, would provide a head almost exactly similar in shape and profile to that sculptured on the monolith at Menchè.

The Maya New Empire was founded by the descendants of those Old Empire emigrants who, towards the end of the sixth century, deserted their great cities in the south for the dry, inhospitable land of Yucatan.

What brought about this exodus is one of the many problems connected with this mysterious race which will probably never be satisfactorily solved.

Some say that, without metal tools, they became unable, as the population increased, to keep grass from taking the place of bush on the lands which they used for corn plantations; others that towards the end of the sixth century A.D., when the emigration took place, a great increase occurred in the rainfall over the entire American continent, so stimulating the growth of the vegetation that the Maya, with their stone and flint axes, were unable to cope with the more rapidly growing forest, and so, in a losing fight against nature, found themselves at last compelled to retreat.

Others again believe that the increase in the population was so great that the people were compelled to go afield for many miles in all directions around their cities, in order to find suitable land whereon to make their corn plantations, and, having no means of transport available except their own backs, were at length unable to bring in sufficient corn for the support of the population of the cities.

Knowing the Maya and their agricultural methods (which

have not altered appreciably within the last two thousand years) as well as I do, my own impression is that none of these explanations, though all show remarkable ingenuity, are quite satisfactory, and that the determining cause of their exodus is to be sought in quite another direction.

I believe, indeed, that the move was made at the instigation of the priests, with some obscure religious motive behind it, probably connected with their ancient prophecies, which they, in common with various nations of the Old World, apparently took every possible precaution to see fulfilled, for we see the same kind of migration taking place amongst the New Empire Maya, with whom none of the above causes could have been operative.

Be that as it may, the Maya settled down in their new environment, and within a few centuries had built up that civilisation known as the New Empire, which, though following different lines in artistic, architectural, and scientific attainments, almost—though perhaps never quite —rivalled the Old. The Maya of the New Empire were, being their direct descendants, featurally very like those of the Old.

We find two different types of skull in New Empire graves, which are much commoner than those of the Old Empire. The first is extraordinarily brachycephalic, the lateral diameter of the skull not infrequently exceeding that of the antero-posterior.

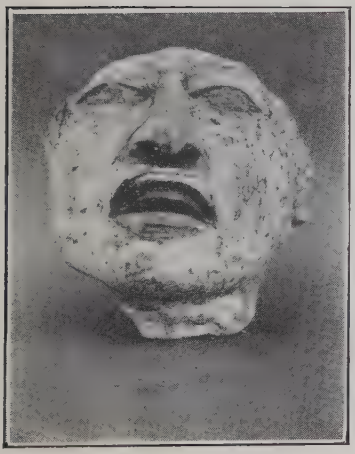
There can be little doubt that in many of the skulls infantile deformation had been resorted to, with a view to accentuating the brachycephaly of an already broad skull, as this feature was, and is, regarded, from an æsthetic point of view, as highly desirable.

The second type is, though moderately brachycephalic, much less so than the first.

A stucco face from a ruined temple, situated on the Rio Nuevo, in British Honduras, is shown in the photograph. This is almost certainly a portrait of some individual, and probably a death mask, as it shows a very pronounced

Clay Figure, Hama Campèche

Oil Lamp, Xupa



New Empire Head, Rio Nuevo

Heads from Stela
at Ixkun

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bilateral asymmetry, and well-marked personal idiosyncrasies, which characterise it as a portrait; moreóver, a number of similar heads were found in the same temple, all obviously modelled from life, or possibly after death.

This face is broad, the nose is delicately shaped and somewhat hooked, the lips are fairly prominent, and the chin small, firm, and rounded—in fact, it might pass equally well for an aristocrat of the Old Empire or a well-bred Maya of to-day, which, as it forms the connecting link between the two, is not to be wondered at.

A certain type of Maya exists in Yucatan, at the present time, quite different from that of the ordinary Indian. These individuals are short, stout, and stocky. The face is large, flat, and broad, and usually markedly asymmetrical, the forehead is fairly high, the nose flattened and broad, but not badly shaped, the mouth broad, the ears and extremities small.

This type, which is extremely common, especially in the towns, has probably originated in a mixture of the old aristocratic with the serf blood in the new environment.

Towards the close of the twelfth century there was introduced into Yucatan the first infusion of fresh blood of which we have any definite cognisance. This was provided by the Toltecs, a Mexican tribe who arrived from the present Mexican States of Chiapas and Tabasco.

They appear to have been first summoned as mercenaries by the Maya ruling prince of Mayapan, who was at the time at war with the prince of Chichen-Itza. The result of this invasion was that the prince of Chichen-Itza was completely subdued by the ruler of Mayapan; with the aid of the imported mercenaries the Itzas themselves were driven out, and their city sacked and handed over to the Toltecs, in payment for the aid rendered by them to the conquerors.

In this way was formed, in the very centre of the Maya New Empire, a small island of Mexican culture, which perhaps, next to the Spanish invasion, was the most potent factor in bringing about its downfall.

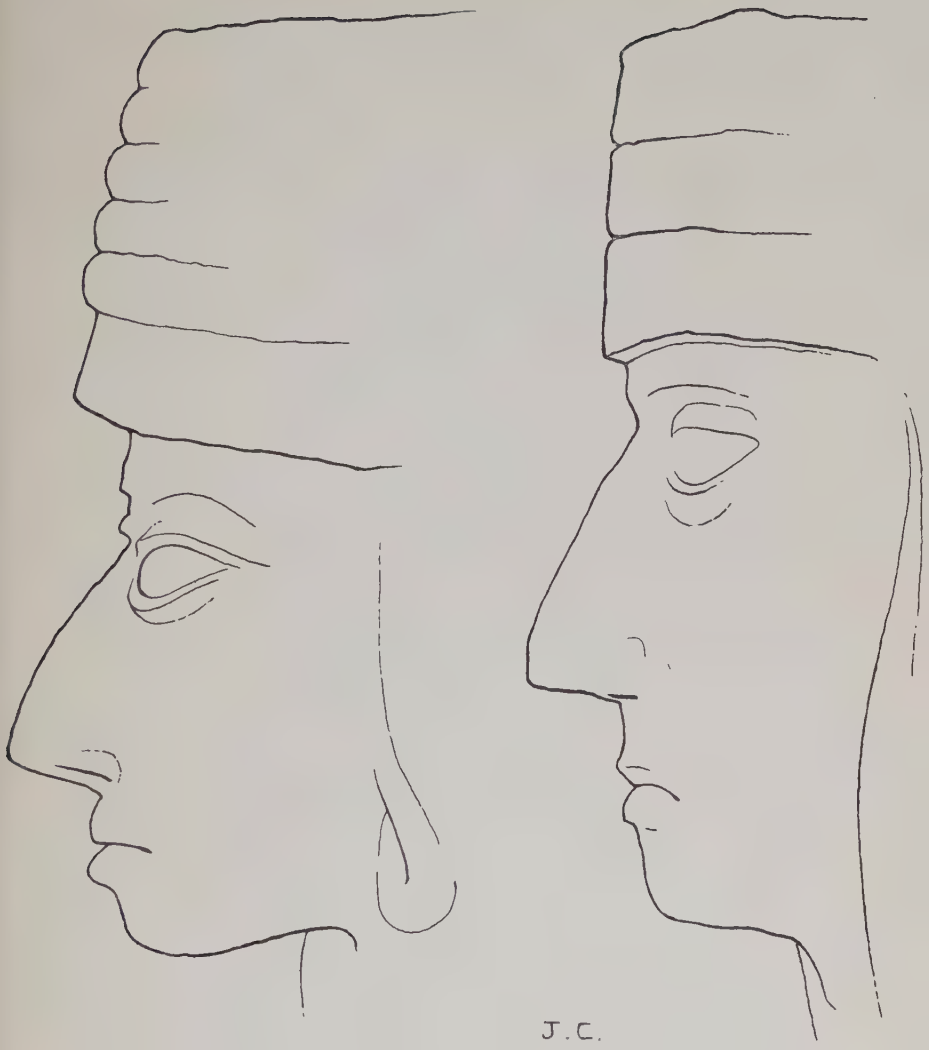
The actual conquest of the country by the new-comers never seems to have extended far beyond the immediate neighbourhood of Chichen-Itza itself, as, except in the city of Uxmal, architectural remains, such as ball courts, serpent columns, Chacmool and Tlaloc statues (indicating Toltec penetration, peaceful or otherwise), are not found in great abundance ; but there can be little doubt that in the later days of the Old Empire Chichen-Itza became a great cultural and religious centre, from which were disseminated the horrid art of war, hitherto practically unknown amongst the Maya, and the sanguinary practices of the Mexican religion, chief amongst which was that of human sacrifice.

The Maya, in fact, from a peace-loving people, worshipping their benign deities, to whom they offered sacrifices of fruit, flowers, and food, degenerated into pugnacious congeries of warring tribes, amongst whom internecine strife was constantly in progress throughout the whole peninsula.

No central control held them in check, as in former days, and, degraded and debased by the horrid practices of the new religion, their hand against every man, and every man's hand against them, they became an easy prey to the invading Spaniards, early in the sixteenth century. Practically no burials have been found at Chichen-Itza, so that it is impossible for us to apply the tests of physical anthropology to the Toltec, and so determine in precisely what respects they differed from the Maya.

A number of skulls, it is true, have been recovered from the sacred *cenote*, of victims thrown alive into that vast well as sacrifices to the God of Rain, but they are all of young adults, and, as one might naturally expect, exclusively of Maya, for it is hardly likely that the conquerors would have sacrificed their own most perfect youths and maidens to the god when they had practically an unlimited supply of those of the conquered Maya available for the purpose.

During the present year, however, the excavations undertaken by the Carnegie Institution of Washington, at the Temple of the Warriors, in Chichen-Itza, have brought to



PROFILES FROM THE "TEMPLE OF THE WARRIORS," CHICHEN-ITZA
Drawn by Jean Charlot

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light a number of beautifully sculptured Atlantean figures, supporting a great table-like stone altar in the principal sanctuary of the temple, which are almost certainly portraits, probably those of contemporary Toltec priests and rulers.

Two of these faces are shown in profile, and it will be seen that, with their prominent Roman noses, short chins, and firm mouths, they are entirely un-Maya in appearance.

The pure Toltec strain must have been lost centuries ago, merged in the predominant Maya, after the Spanish invasion, when Maya and Toltec alike were reduced under the new conquerors to the same dead level of serfdom ; but these little statues have preserved for us what are probably extremely accurate portraits of the upper-class Toltecs during the three centuries or so that they ruled Chichen-Itza.

To me their features are strongly reminiscent of those of the ancient Romans as one sees them portrayed in the marble statues of their best period ; the same large, arched nose, firm mouth, and short chin are present in both.

The histories of the two nations, moreover, are not without parallelism, for as Rome was virtual mistress of the civilised Old World, so was Teotihuacan, the great Toltec capital, mistress of the New ; as Rome planted her colonies and her culture far afield in barbarous countries, so did the Toltec influence extend as far north probably as the Pueblo region, and certainly as far south as British Honduras ; and as Rome, eaten up by the cancer growth of her own overweening pride and luxury, fell an easy victim to more virile, barbarous nations, so the Toltecs, and with them the Maya—whom they had during their three centuries of rule largely perverted—fell easy victims to the cruel and fanatical, but better armed and more virile, Spaniards.

The Mayas of the New Empire, far from being a pure, unmixed homogeneous people, probably contained the blood of two different races in their veins at the time they reached Yucatan, to which, after the close of the twelfth century, must have been added a strong tincture of Toltec blood,

especially in the neighbourhood of Chichen-Itza, and other Toltec colonies.

Whether, in later days, any admixture ever took place between the Maya and the Carib Indians from the south it is impossible to say. The Carib had undoubtedly penetrated, at a comparatively early date, what is known as the Maya area, and had even established coastal villages.

It is almost inconceivable, however, that cannibal Caribs should have been admitted to Maya towns, and probably any intercommunication which took place was in the nature of raids upon Maya coastal towns, by Carib war doreys in search of loot, and especially of women.

This theory is supported by the fact that along the east coast of Yucatan, which would naturally have been the region most subject to Carib raids, three at least of the Maya towns were protected by great stone walls built round the entire settlement, within which the people of all the surrounding district could retire for safety in case of a raid by enemies arriving by way of the sea.

A curious and extremely interesting miscegenation took place amongst the Maya during the middle of the last century.

Along the east coast of Yucatan, reaching from the British Honduras boundary in the south to the level of the island of Cozumel in the north, and westward back for perhaps a hundred miles, the whole territory was, and is, occupied by a tribe of Maya Indians known as the Santa Cruz. This branch of the Maya had practically never come under the Spanish dominion, and was in consequence almost of pure descent, and, as they allowed no strangers to settle in their villages, of almost unmixed blood.

Towards the middle of the last century a considerable number of indentured Chinese coolies were imported by the Government of British Honduras as labourers on the land. This, it may be said, was not an entirely successful experiment, for those of the Chinese who worked out the period of their indenture usually left the land, and, on

their savings, started small shops and businesses of their own.

Quite a considerable number of the Chinese never even attempted to carry out their agreement, but, on reaching the colony, promptly ran away, seeking refuge amongst the Santa Cruz Indians, whence, of course, it was impossible to recover them.

The curious thing was that they were, contrary to the usual custom, received with open arms by the Santa Cruz, given wives and land, and, in fact, encouraged to settle in the country. The natural consequence of this immigration to the Santa Cruz territory of Chinese men was that in a few years' time there burgeoned forth a considerable crop of mixed Maya and Chinese, which, on my first visiting the country in the last years of the nineteenth century, had reached the second, and even the third, generation.

Now there was an inexplicable sequel to these marriages; notwithstanding the strong physical resemblance between the Maya and the Chinese, which is sometimes so marked that it is not always easy to tell until he speaks to which nation an individual belongs, and the curious psychical sympathy as exhibited in the Santa Cruz accepting the Chinese with open arms, while excluding all other settlers, these unions between the two, from a eugenic point of view, proved in almost every instance disastrous.

The stigmata of degeneration were present in almost all the children of the first generation: drunkenness, prostitution, epilepsy, mental deficiency, incurable laziness, lack of moral sense, etc.

Why this should have been the case in marriages which one would have imagined at first sight should have proved exceedingly successful I must leave to a more accomplished eugenist than myself to explain. I would point out, however, that the Maya women make excellent wives, and that they "clicked" from the first with their Chinese husbands. Furthermore, according to many ethnologists, Maya and Chinese are descended from a common Asiatic stock.

The field season had been on the whole an extraordinarily successful one, the two main discoveries being the very early date on the monolith at Ichpaatun and the great ruined city of Cobā in north-eastern Yucatan.

This latter has been rendered more important by intelligence just received from Dr. Sylvanus Morley—Director of the Carnegie Institution archæological project in Yucatan—to the effect that a third expedition sent out by the Carnegie Institution to visit the great ruined city of Cobā had come upon, buried in the virgin bush, at a point approximately one and a half miles west of the ruins, what appears to have been the ceremonial centre of the city.

Here were discovered no less than eight stelæ, recording Initial Series dates varying from 9.9.0.0.0. to 9.12.0.0.0—that is, according to Spinden's correlation, between A.D. 353 and A.D. 412.

These dates are, of course, of enormous importance, as they indicate the colonisation of Yucatan centuries before the date given for that event by the ancient Maya chronicles, the Books of Chilam Balaam.

They completely authenticate the contemporaneity of the stela found by me on the Chetumal Bay, bearing the date 9.8.0.0.0, or A.D. 333, and prove that the date found at Tuluum, a ruined city on the coast to the east of Cobā, is 9.6.10.0.0, or A.D. 304, and not 10.6.10.0.0, or A.D. 698, as has hitherto been accepted.

The Initial Series date on the Tuluum stela is clearly 9.6.10.0.0, but it was supposed by Maya scholars that it was impossible that this early date should be contemporaneous in this situation, and it was consequently believed to refer to some event which had occurred a Bactun, or four hundred years, previously, the stela having been erected to commemorate its quatercentenary.

It appears probable that Chichen-Itza, the great sacred city of Yucatan, must itself have been colonised from Cobā, for the only Initial Series date recorded at Chichen is nearly three centuries later than the earliest now discovered in

Cobā. This would make Cobā the most important city in the New Empire, and perhaps one of the most important aboriginal sites on the American continent.

The discovery of an Old Empire site in the middle of the New Empire completely upsets most of the generally accepted theories as to Maya chronology, and will necessitate an entire revision of the whole subject.

Dr. Morley himself visited the site, notwithstanding his regrettably poor health at present, and the dates have been entirely authenticated by him, the greatest living authority on the Maya hieroglyphics and calendar system.

One of the most curious points about the new stelæ is that they had all been housed in little shrines or shelters, such as are found in great abundance along the east coast of Yucatan, and belong to a much later civilisation, dating from the twelfth century up to the Spanish Conquest.

This indicates that the city must have been occupied by the Maya for well over a thousand years, and that the later inhabitants greatly revered, and possibly even worshipped, the great sculptured monoliths left by their ancestors of a thousand years before.

In view of this discovery, it is quite possible that the date upon Stela 1, found on the causeway, may record A.D. 563, according to Spinden's correlation, when a Tun 8 ended in 8 Ahau.

During the 1926–27 field season I propose to carry out intensive exploration in the forest around the ruins of Ichpaatun, with a view to the discovery of other dated monuments, and possibly of the city to which the great isolated burial-place on the Rio Hondo belongs.

I hope also to be able to make a trip into the hinterland of the country occupied by the Santa Cruz Indians, along the east coast of Yucatan, as this tribe is now comparatively peaceful, and there are rumours amongst them of great unvisited ruins in this situation ; it will also be extremely interesting to discover how much they have retained of their former manners, customs, and religion, for, never having

been conquered by the Spaniards, they live more nearly than any other branch of the Maya the life of their ancestors before the coming of the Europeans.

Lastly, I hope to carry out extensive exploration in the neighbourhood of Cobā, and to follow the great causeway from beginning to end.

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